

**COMMUNITY-BASED NATURAL RESOURCE MANAGEMENT IN  
CAMBODIA**

FINAL

Review of IDRC Supported Initiatives  
&  
Ideas for Future Programming

Report of a Mission

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January 2006

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## **EXECUTIVE SUMMARY**

Community Based Natural Resource Management has been identified by an increasing number of individuals and organizations as a promising set of approaches to address rural poverty and environmental degradation.

IDRC's work in Cambodia with groups of young professionals in government agencies at central and local levels has contributed much to the development of more effective approaches in different situations and sectors, and to the development of capacity to support communities in more sustainable and in working towards more equitable resource management.

The needs for continuing development and wider application of these CBNRM approaches in Cambodia are indicated by high levels of rural poverty and increasing pressure and competition for natural resources.

The dependence of the Royal Government of Cambodia on donors for the financing of its development efforts has contributed to initiatives in administrative reform. Reforms in the administration of natural resources form an important part of these efforts.

The five IDRC supported CBNRM development initiatives presently operating in Cambodia have contributed considerably to the shaping of these reform initiatives. In particular, IDRC projects have contributed to: (a) the inclusion of natural resource issues in the decentralization program; (b) the development and promotion of more participatory approaches in coastal resource and environmental management; and (c) capacity building in the development of community forestry and community fisheries.

The mission notes the emergence of a 'cross sectoral' CBNRM development program in Cambodia, facilitated by the CBNRM Learning Institute. The institute has successfully promoted the adoption of common approaches in different CBNRM initiatives, based on analysis and reflection with key actors in these initiatives.

The review of IDRC project outcomes demonstrates an impressive range and number of outcomes at field/community level, and even more in the development of capacity in the partner organizations as well as in contributions to emerging programs and policies.

Based on the frank and open discussions with project staff and observers, a number of constraints and issues were identified in the present approaches and arrangements. One major issue is that the projects appear to have been more successful in resource protection, or enhancing the sustainability of natural resource use, than in improving the efficiency of resource use, management and exploitation for contributions to rural livelihoods, particularly for poorer villagers that are most dependent on these resources. Other issues refer to organizational constraints, such as the need to manage a large number of projects in some cases, or to 'ownership' of the project, contributing to limited institutionalization of innovations by relevant organizations.

Another set of issues to be addressed in future programming originates from the rapid changes in the administrative and policy environment. Review of the new ‘technical working groups’ and related national programs in decentralization and all major NRM sectors, demonstrates according to this mission, the need for IDRC initiatives to develop more intensive ways to ‘engage’ with these new ‘policy implementation and development’ arrangements.

We also recommend the need to revise and improve the research support and mentoring of field based activities in a coordinated manner. Finally, we recommend to explore in more depth support to the building of research and education capacity in two major universities.

Suggestions for next steps include a critical review of the mission’s findings and recommendations by development partners and observers, and some ideas for implementing the recommendations (in whatever adapted form) through the development of project ideas in consultation with key actors in the various NRM sectors / technical working groups.

## ACRONYMS

ADB	Asian Development Bank
ARDB	Aquatic Resources Dependency and Benefits
CARERE	Cambodian Rehabilitation and Resettlement Programme
CBNRM	Community-based Natural Resource Management
CBNRM LI	Community Based Natural Resource Management Learning Institute
CCB – NREM	Commune and Community-based Natural Resource and Environmental Management project
CDRI	Cambodian Development Research Institute
CFO	Community Forestry Office, FA
CFDO	Community Fisheries Development Office, DoF
CFRP	Community Forestry Research Project, IDRC
CFU	Community Fisheries Units (provincial), CFDO
CIDA	Canadian International Development Agency
CMDG	Cambodian Millenium Development Goals
CPAD	Community Protected Areas Development office, MoE
CPRs	Common Property Resources
D&D	Decentralization and Deconcentration
DFID	Department for International Development (UK)
DoF	Department of Fisheries
DOLA	Department of Land Administration, MoI
FA	Forestry Administration
FAO	Food and Agriculture Organization
GTZ	Deutsche Gesellschaft fur Technische Zusatntneharbeit
HVF	High Value Forests
IDRC	International Development Research Center
IMF	International Monetary Fund
LMAP	Land Management Administration Project
MAFF	Ministry of Agriculture, Forestry and Fisheries
MoE	Ministry of Environment
MoI	Ministry of Interior
MLMUPC	Ministry of Land Management, Urban Planning and Construction
NPRP	National Poverty Reduction Strategy
NREM	Natural Resources and Environmental Management
NRM	Natural Resources Management
NTFP	Non-Forest Timber Products
RGC	Royal Government of Cambodia
PMCR	Participatory Management of Coastal Resources project, IDRC
SIDA	Swedish International Development Agency
UNDP	United Nations Development Program
WB	World Bank
WFP	World Food Program

## ACKNOWLEDGEMENTS

Our sincere appreciation to each of the IDRC-funded project teams – Ratanakiri, PMCR, CFRP, CFDO and CBNRM LI for taking time out of your busy work schedules, including on public holidays, to meet with this review team. Your candid reflections and thoughts made this report what it is! And, a special thanks to the Ratanakiri team who made the 14 hour trek down to Phnom Penh to meet with us.

To the project team leaders and advisors -- Kim Nong, Sy Ramony, Lun Kim Hy and Ashish John, Ken Serey Rotha and Rebecca Kinakin, Cheam Pe A and Ly Vuthy -- you provided an excellent synthesis of your project work. More than this, you really inspired us with your dedication and commitment to your work.

Toby Carson provided support to this review team in many important ways. This included helping us to gain access to key donors and letting us bounce / discuss numerous ideas off him as they merged! Thanks for your generosity and for sharing your insights from working on CBNRM issues over the past decade.

We would also like to thank those that we met with before the review mission, either in person or via phone. Such conversations helped us in scoping the wider CBNRM landscape. While in Cambodia, the many government officials who took time to explain their work with us are appreciated. Members from NGOs and donor organizations provided additional perspectives, as did discussions with faculty at RUPP and RUA.

IDRC program officers, Hein Mallee and Brian Davy, and staff, Elaine Tang, provided materials, critical support and guidance from the start of this exercise. Many thanks for your thoughtful review of our work. The team has tried to answer some of their incisive comments on earlier drafts of this report, and though we tried to provide some answers, we readily acknowledge that there are many points raised by them that require considerable more thought than we were able to provide.

The usual disclaimer applies in that the team is solely responsible for any errors and misinterpretations found within this report.

Cor Veer, Min Muny and Melissa Marschke

## INTRODUCTION TO THE CAMBODIAN CONTEXT

### POVERTY, POWER AND NATURAL RESOURCE MANAGEMENT

#### POVERTY

Over 13 million people live in Cambodia, with 35% of the population living below the poverty line (84% in rural areas) (EIC 2005; Human Development Report 2002). Half the households within nearly one-third of all Cambodian communes live in poverty. Poverty, according to Cambodia's National Poverty Reduction Strategy (NPRS), is a function of "high population growth, inadequate opportunities, low capabilities, insecurity, exclusion and vulnerability" (NPRS 2003: 10).

Poverty is one indicator of inequality within a society. According to the latest Cambodia Human Development Report (2002), Cambodian society is characterized by entrenched inequality as demonstrated by poverty, inequality in gender status and access to education. Poverty affects households differently. From a gendered perspective, as an example, poor women have less access to health-care, education and productive resources than their male counterparts (NPRS 2003). Women are vulnerable to trafficking and prostitution. Regional differences, particularly between urban and rural areas, enhance inequalities ever further.

These inequalities are rooted in a cultural context in which hierarchical relations and respect for authority are important attributes.

#### POWER

*Small people do the work, the big give orders; when the small challenge, then the big will kick.* Cambodian proverb

This Cambodian proverb describes how those with less power (the small) should not try to challenge those with greater power. The proverb hints at values that may be deeply embedded in the Cambodian way of life, namely hierarchy and power relations. Although Cambodian culture is "constantly being re-imagined, and negotiated, through the everyday actions of people going about their lives" (Legerwood and Vijghen 2002: 110), there are values that are ingrained within Cambodian society.

Cambodian social relations take place within a generally authoritarian, hierarchical construct (c.f. Legerwood and Vijghen 2002; Marston 1997). From childhood, people are taught to obey and respect those with authority. Challenging, questioning, and holding dissenting views are discouraged, conflict is seen as bad and loss of face is inappropriate. O'Leary and Meas (2001: 48) further comment: "In Cambodian society social stratification and differences in status are extremely important. Everyone knows, and needs to know, their place relative to that of others". In Cambodia, power is a particularly understood concept, representing those with money, connections and friends-

in-high-places (Marston 1997). While the powerful assume their right to control, subordinates internalize and accept their powerlessness (O’Leary and Meas 2001). Notions of power and authority relate to patron-client relationships (Ayres 2000).

In Cambodia, patron-client relationships are subject to negotiation. That is, the particular nature of dominance and dependence of two parties are in constant flux (Legerwood and Vijghen 2002). The Khmer saying “*neak mein knong*” which literally translates as “person with back” refers to the idea that someone with greater power is supporting them. In the context of resource management, for instance, if villagers wish to prevent illegal activities from taking place someone with greater power may need to support such actions (Nong and Marschke *in press*). An understanding of culture is particularly important to ensure that realistic resource protection and management measures are implemented and sustained. Too often, development practices run counter to traditional Khmer values (O’Leary and Meas 2001). More confusing for the outsider, culture is dynamic, subject to accommodation, adaptation and revision (Smith 1994). Often there may be a blending of Khmer ‘traditional values’ with aspects of development discourse (hence decentralization and other ‘bottom-up’ policies are somewhat encouraged).

## NATURAL RESOURCE MANAGEMENT

Rural households practice a diverse range of income and livelihood strategies to meet their needs, including agricultural practices, using common pool resources (CPRs) and other economic activities (Marschke 2005). For example, 90% of rural households engage in some form of agriculture and 30% or more of rural households engage in wage labour of some type including small businesses (World Bank 2004). CPR-based activities (fishing and forestry) are important livelihood strategies for subsistence and economic purposes (Helmets et al. 2004). Rural Cambodians may depend on forests for construction materials, fuel wood, non-timber forest products (NTFPs) and for traditional medicines. Indigenous communities place a high spiritual value on forest areas. Aquatic resources that households may depend upon include fish and other aquatic species, water lilies, morning glory and lotus plants.

In a survey of 9 villages, Sophal and Acharya (2002) noted a relatively higher dependence on CPRs for the poorest households in a village, although better-off households gain higher incomes from CPR in absolute terms. This is related to access to labour and to capital required to maximize benefits. For instance, if a source is far away a household requires access to male labour (since women rarely leave the village area for longer time periods) and a means of transportation (Helmets et al. 2004). Overall, rural livelihoods in Cambodia depend heavily on natural resources. Helmets et al. (2004: 7) comment that, “forestry and fisheries/aquatic resources are an essential part of rural Cambodian households’ livelihood activities. They support subsistence and constitute sources of income. They are of particular importance to the rural poor”.

Conditions affecting access to resources and resource utilization patterns have been changing rapidly, particularly in the past decade (Baran 2005). This rate of change is accelerating with the ‘opening up’ (physically, economically and institutionally) of



regions and resources within Cambodia to the regional (and world) economy. For example, since 2000 catches in the Tonle Sap Lake have been lower than would be predicted by peak flood level, and the 2003-2004 catch was the lowest ever recorded (Hortle et al. 2004), apparently the result of ever-increasing fishing pressure along the Tonle Sap Lake and Tonle Sap River. The illegal ‘grabbing’ of land, forest and water areas by those with ‘power’ reduces the range of options available to rural households. This ‘opening up’ results in competing claims on resources along with new forms of production, often leading to loss of access and/or degradation of CPR resources that the poorer parts of the local population depend.

Relatively recent political upheaval (particularly in the 70s and 80s) has seriously eroded both local and national institutions in human and natural resource management and development, contributing to a widening capacity gap.

Better understanding of rural livelihood is necessary (McKenney & Tola 2002). Diversification and migration are livelihood strategies found in rural households that require further unpacking in different ecosystems within Cambodia (Marschke 2005; IMM et al. 2005). For example, what is the role of migration in fishing communities compared with agricultural communities? Also critical for poverty alleviation is a consideration of the potential for equitable growth in the natural resources sector. Turton (2004: 16) comments that, “we need to move the debate from that of current dependence and utilisation to the potential contribution of natural resources with an emphasis on equitable access and equitable sharing in revenue flows”. Access to and benefits from natural resources by villagers might just enhance rural livelihood.

Cambodia’s slowly emerging civil society is facing the challenges implied in balancing the upsides and downsides of globalization and its local manifestations. One of these manifestations is the large number of donors, aid agencies, NGOs and other ‘lords and ladies of poverty’. They complement the better dressed representatives of private companies from neighboring and other countries, investing in the facilities that are to absorb the 200 000 people entering the job market every year, with decreasing success (Srey 2005) (mainly in manufacturing and tourism).

For the natural resource sector the government, under pressure from donors and civil society, has crafted a set of rules and regulations (still to be completed) that potentially offer more opportunities for rural people to control and manage their natural resources. That is if the political will to implement and enforce them can be mustered (Ear 2005). We will further discuss political will in our analysis of government programs related to the natural resources sector.

## **ADMINISTRATIVE REFORMS**

Cambodia can be characterized as both a post-conflict society and a transition economy (Godfrey et al. 2000). Within the Cambodian government’s reform agenda, institutional reforms in decentralization do feature prominently. Progress includes: three national

elections (1993, 1998, 2003)<sup>1</sup>, a more functioning government, the ‘beginnings’ of civil society movements and the 2002 elections at the commune level, perhaps Cambodia’s most significant decentralization policy to date.

Reforms in the natural resource management (NRM) sector can also be found. The government has issued a range of new rules and regulations for the NRM sector in the past several years, potentially (if enforced) providing for greater and more secure access to natural resources by the rural poor. The 2001 Fisheries Reform provides one example. The growing demand for a reform of the fisheries sector led to a decision in early 2001 to release 56 percent of Cambodia’s commercially zoned fishing area to communities (Evans 2002)<sup>2</sup>. This hints at the magnitude of these administrative reforms.

Not surprisingly, even with significant administrative reforms challenges remain. Social indicators are low in Cambodia: most likely it will take another generation to regain human capital lost during the Khmer Rouge era. The population structure is skewed with approximately 42% of the population being below the age of 15, thus indicating a high dependency ratio. The illiteracy rate for adult males is estimated to be around 20% and for adult females 43%. Life expectancy at birth is 54 years, and the level of adult literacy is 69% (World Bank 2004). Malnutrition is widespread. Both maternal and child and infant mortalities are high despite improvements during the 1990’s. Poverty remains high, at 35% (EIC 2005). Only 30% of the population has access to safe drinking water, and 17% access to sanitation facilities (EIC 2005).

Cambodia remains one of the most heavily aid-dependent countries in the world (UNDP 2002). Low GDP per capita (270 USD) also makes Cambodia one of the poorest countries in the world (World Bank 2004). In economic terms, the average annual growth rate is 6.7% from 1994 to 2002 (EIC 2005). Cambodia’s economic growth tends to be concentrated in urban areas on a few activities (namely manufacturing and tourism). Agriculture represents the largest share of both GDP and employment (Cambodia and Lao PDR are the only two countries in the region where this is the case) yet the performance of Cambodia’s agriculture sector has been “disappointing” (World Bank 2005a: i). Agriculture’s significance is particularly important in relation to employment: over 70% of the population over 15 years old pursues agriculture activities (this statistic also includes forestry and the fishery) (MoP 2002). For many rural Cambodians, agriculture-related pursuits are critical livelihood strategies yet current trends indicate that the sector’s ability to continue to support rural livelihoods is limited and the amount of new employment outside agriculture is also limited (World Bank 2005a).

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<sup>1</sup> The Asia Foundation (2003: 10) in a governance survey found that Cambodians participate in elections to “fulfill their civic duty. Almost none think that elections offer an opportunity to provide input into government policy and composition or to change the direction of their country”. This suggests that administrative reforms may mean something different than ‘outsiders’ assume.

<sup>2</sup> Analysis of the Fisheries Reform illustrates the top-down nature of reform in Cambodia. P.M. Hun Sen mandated this reform: as a result, a Community Fisheries Development Department was created and appropriate legislation was drafted and passed (in 2005). Although there have been problems with implementing the Fisheries Reform (as with all reforms), with P.M. Hun Sen’s endorsement remarkable change has taken place in the fisheries sector in the past five years (without this support, it is doubtful the Fisheries Reform would have happened).

And within this landscape, there is the particularly serious problem of controlling rampant corruption and enforcing the rule of law (EIC 2005). It is against this background that the government's commitment to administrative reforms in Cambodia must be understood. Observers do express doubts about the political will or ability to implement the reforms. In the words of the civil society forum for the consultative group meeting in 2004, "*it is time to transform the promises and commitments into actions with concrete outcomes*" (EIC 2005: 178). Although there are gaps in Cambodia's legislative framework, simply following existing laws and policy could make a significant difference in terms of development.

Nonetheless, it should be acknowledged that one reason for the complications in implementing the reforms is the radical nature of societal transformation that the reforms aim to support:

- ❑ from highly centralized and hierarchical forms of governance, required for the restoration of order and stability after years of conflict, to one where power is decentralized, both vertically and horizontally,
- ❑ from a society dominated by informal networks and rules, to a society more 'ruled by law',
- ❑ from a predominantly peasant-based economy to a diversified market based economy (EIC 2005: 141).

To support these transitions, at least 6 areas of reform are being tackled simultaneously by the Royal Government of Cambodia:

- ❑ banking and financial sector reform,
- ❑ public financial management reform,
- ❑ trade reforms,
- ❑ public administrative reforms (including decentralization),
- ❑ legal and judicial reforms to improve governance,
- ❑ land and natural resources management reforms (land, forest and fish) (EIC 2005).

This mission has not been able to review the nature and state of reform in (a) the banking and financial sector, (b) public financial management, (c) trade reforms, (d) public administrative reforms beyond the basic tenants of decentralization and, (e) legal and judicial reforms to improve governance. In our review, we have focused on the basic tenants of decentralization with regards to NRM<sup>3</sup> and land and natural resources management reforms. It is, however, obvious that other parts of the reform (such as the arrangements for rural finance as part of the banking and financial reforms) are also relevant for community based natural resource management (CBNRM).

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<sup>3</sup> We also recognize that decentralisation processes are young in Cambodia and, based on experiences with decentralization elsewhere (see Ellis & Freeman 2004), will most likely represent particular challenges for the effectiveness of resource management. Decentralisation, for example, creates political and bureaucratic entities that are able to pass and enforce by-laws and collect taxes in order to contribute to local budgets and running costs (Ellis & Freeman 2004). In Cambodia, fiscal decentralization has yet to happen. Thus, it will be important to consider the role that the commune council does eventually take with regards to resource issues and how this affects rural livelihoods.

It is within this shifting context that the IDRC projects in CBNRM<sup>4</sup> have been operating. Initial work in community-based management began in Ratanakiri province, Cambodia in 1995: this work has expanded over the years to include the five current CBNRM projects (the oldest being in Ratanakiri; the newest beginning in 2002). As we will try to demonstrate in more detail (in the following sections), IDRC-supported people, projects and organizations have contributed much to the emerging institutional framework for community based natural resource management.

### **THIS ‘MISSION’: OBJECTIVES AND APPROACH**

IDRC has supported work in Cambodia since the early 1990s. Of the five CBNRM projects currently supported in Cambodia, three will reach their planned completion date within a year. While each of the projects has had considerable success in achieving its objectives, in all cases there is still much work to be done before outcomes are sustainable and capacity is sufficient. The timing of the internal transition within IDRC from the CBNRM Asia program<sup>5</sup> (2000 – 2003) to the global Rural Poverty and Environment (RPE) Program Initiative (2005 – 2010) provides an opportunity to examine IDRCs work in Cambodia, along with the evolving context for community based management in Cambodia. See Table 1 for a comparison of the goals and objectives / outcomes between these two initiatives.

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<sup>4</sup> Although these projects were designed under IDRC’s CBNRM Asia initiative, it could easily be argued that these projects are really more co-management or adaptive co-management initiatives (see Marschke and Nong 2003). Regardless of the term, CBNRM has been conceived quite broadly.

<sup>5</sup> IDRC’s Community Based Natural Resource Management (CBNRM) initiative is an Asian-based program that supports mechanisms by which communities can work towards sustainable natural resource management, and by which various levels of government policies must contribute. Site-specific community managed research builds capabilities to diagnose and develop environmental, social, technological and institutional innovations. Such approaches, processes and findings provide insights for local policymaking around key resource management decision-making. This initiative emphasizes participatory and interdisciplinary research that builds flexible and adaptive capacity for change and accounts for gender differences and social heterogeneity between users of collective and private resources (Gonsalves and Mendosa 2003).

**Table 1: Comparing the goal s and outcome areas of the former CBNRM Asia program with the current RPE initiative (which merges regional programs into a global initiative)**

<b>CBNRM ASIA MERGING INTO RURAL POVERTY AND ENVIRONMENT INITIATIVE</b>		
	MANAGING NATURAL RESOURCES (ASIA) CBNRM PHASE II 2000 – 2003	RURAL POVERTY AND ENVIRONMENT PROGRAM (GLOBAL), 2005 – 2010
Goal	To develop and transfer technical, methodological, analytical, social/institutional and policy innovations for more productive, equitable and sustainable natural resource use by communities in ecosystems facing environmental stress and degradation in Asia	To strengthen institutions, policies and practices that enhance the food, water and income security of the rural poor living in fragile or degraded upland and coastal ecosystems.
Specific Objectives / Outcome Areas	<ol style="list-style-type: none"> <li>1. Identify / analyse local resources &amp; livelihoods under the greatest threat; disaggregate micro/macro factors leading to degradation;</li> <li>2. Develop new technologies / adaptations of indigenous systems that make more productive &amp; sustainable use of local commons;</li> <li>3. Improve / promote institutions to assess, manage &amp; monitor NRM;</li> <li>4. Develop mechanisms for resource planning and policy interaction;</li> <li>5. Compare / exchange CBNRM lessons between communities, research institutions and gov't agencies within the region.</li> </ol>	<ol style="list-style-type: none"> <li>1. Building effective environmental governance;</li> <li>2. Enhancing equitable access and use rights to natural resources;</li> <li>3. Strengthening communities' capacity to respond to and benefit from integration within wider social and economic systems; and</li> <li>4. Adaptive learning in key hotspots of rural poverty and environmental degradation.</li> </ol>

As Table 1 illustrates, the move towards a global Rural Poverty and Environment (RPE) initiative within IDRC retains many of the same objectives / outcome areas as found under the CBNRM Asia initiative, including enhancing equitable access to resources, strengthening communities and emphasizing learning. This synthesis provides scope to continue with on-going CBNRM work and for the RPE program to consider other initiatives within Cambodia.

This review team talked with the five CBNRM projects funded by IDRC in Cambodia, including (a) Mainstreaming of Natural Resources Management (Ratanakiri), (b) Participatory Management of Coastal Resources (Koh Kong), (c) Community Forestry Research Project, (d) Community-based Management of Inland Fisheries, and (e) the CBNRM Learning Institute. This report synthesizes key learnings and outcomes from the five IDRC-supported CBNRM projects and considers the broader 'landscape' for CBNRM.

The overall objective of this review is to provide IDRCs Rural Poverty and Environment Program Initiative a basis for deciding near and medium term programming in Cambodia. To do so, the following 'guide questions' were explored:

## INTRODUCTION

- What has been learned from past IDRC projects?
- What are the main project outcomes?
- What has been the role of social learning in these projects?
- What is the current state of CBNRM-related capacity in Cambodia?
- How to define strategic engagement opportunities related to CBNRM?
- How can IDRC and research partners develop exit strategies?

For a complete look at these ‘guiding questions’ and the Terms of Reference for this Review Mission, see Appendix A.

## APPROACH

The approach taken by the three-member review team (consisting of Cor Veer, Min Muny and Melissa Marschke) was to (a) review project documents and secondary literature related to CBNRM (b) facilitate a ‘consultative-participatory’ process with IDRC project teams related to this review and (c) conduct a series of interviews with key informants in the CBNRM sector (see Appendix B for a list of who the review team met with).

Although this review process spans a three-month period, actual ‘fieldwork’ took place in Phnom Penh, Cambodia between October 28<sup>th</sup> and November 15<sup>th</sup> 2005. No time was spent outside of Phnom Penh on this review, although two of the review team members were familiar with environment and decentralization issues in rural Cambodia.

Project documents were read in advance, along with other relevant secondary literature. A series of interviews (telephone and in-person) with key informants involved in CBNRM but based outside of Cambodia took place prior to the review team starting their work in Cambodia. IDRC project teams were met with several during this review process, as individuals, as teams and as a larger IDRC group to share/gain feedback in this review process. Other key informants included personnel of government agencies, NGOs, donor agencies and academics.

## REPORT OUTLINE

The five IDRC projects are briefly described and summarized. Major outcomes from each of these projects are considered, along with the cumulative outcomes in the area of CBNRM from these projects. Major lessons, strengths and challenges are considered. From here, the wider institutional landscape of CBNRM in Cambodia is explored, including key government programs and major donor initiatives. This then leads into options and recommendations for future IDRC programming. Appendices include several frameworks related to CBNRM and sustainability that may serve as an initial basis to guide further development.

## **IDRC SUPPORTED CBNRM INITIATIVES IN CAMBODIA**

This section begins with an overview of the IDRC supported projects in Cambodia before turning to the specific details of the five projects. The projects are then analyzed, with wider lessons being drawn from these experiences. From here, general trends related to these projects are commented upon.

### **IDRC SUPPORTED CBNRM PROJECTS**

Of the five IDRC supported CBNRM projects presently operating in Cambodia, the Natural Resource Management Project in Ratanakiri has the longest history, initiated in 1995. The coastal resource management project in Koh Kong, initiated in late 1997 has a similar ‘area’ focus to that found in Ratanakiri.

Ratanakiri and Koh Kong both represent ‘marginal’ environments (as defined from Cambodia’s densely populated agricultural heartland), with low population densities, well endowed with natural resources, attracting migrants and business companies interested in exploiting these resources for livelihood or profit<sup>6</sup>.

Two other projects have more of a ‘program’ or (sub) sector focus: (a) the Community Forestry Research project, initiated in 1999; (b) the Community Fisheries Development project initiated in 2002. Both these projects have learning sites in a range of ecological and administrative conditions, although are administered from Phnom Penh.

The CBNRM learning initiative was initiated in 2001, and evolved into the CBNRM Learning Institute in 2005. This initiative began with a focus on case study writing and analysis as a means to network between CBNRM projects. As this initiative has evolved, there is a focus on providing technical and capacity building support to other CBNRM initiatives, documenting and analyzing lessons, synthesizing knowledge and providing platforms for information exchange and for policy dialogue.

The mission is aware of other IDRC initiatives in CBNRM such as the Integrated Pest Management project, but such past projects are beyond the scope of this review. Only the five currently-funded CBNRM projects (and aspects of past phases of these projects) are examined.

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<sup>6</sup> Both areas are relatively isolated from the rest of the country, with road access only happening in the 2000s. In the case of Ratanakiri, one could only take a flight (which operated sometimes) from Phnom Penh to the provincial town until recently; in the case of Koh Kong, one drove to the coast and then took a 4 hour boat ride to the provincial town until recently. Although such isolation represented particular challenges for each of these projects, it also meant that significant time and emphasis was placed on ‘field learnings’. Ratanakiri is the only IDRC CBNRM project that has no national office space, headquarters are in Ban Leung, the provincial town in Ratanakiri. PMMR has an office in the Ministry of Environment, Phnom Penh and a separate office in Koh Kong town.

## PROJECT PROFILES

The following section synthesizes key lessons related to each of these five projects. In each case, one or two earlier phases of the project have already taken place. Given that projects build upon their work, we have included the number of phases each project has had to indicate the length of time projects have been running. The bulk of the CBNRM work in Cambodia is a result of the five current IDRC projects and this is what we concentrate on.

Rather than repeat what is found in project proposals or technical documents, the review team relied on discussions and impressions formed when working with each project team, and drew upon reflection documents produced by many of the teams (project proposals are generally too ambitious; technical reports are excellent but not particularly critical of progress).

**Table 2: IDRC CBNRM Projects**

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### RESOURCE MANAGEMENT RESEARCH IN RATANAKIRI, PHASES 1 - 3

#### DATE STARTED

1995

#### MAIN OBJECTIVES

- Sustainable use of natural resources
- Protection of cultures
- Secure livelihoods for local communities

#### FOCUS

- Initial focus on piloting community-based natural resource management in several communes (e.g. Yeak Lom Lake)
- Community forestry
- Eco-tourism
- Land use planning and mapping (started with a CBNRM focus, switched to PLUP as this framework emerged)
- Improving land tenure security for indigenous people (communal land titling, started in phase two)
- Sustainability of a shortened swidden cycle

#### MAIN STRATEGIES

- Initial work helped UNDP CARERE to consider NRM (then the IDRC action research was integrated into the CARARE work) and the needs of indigenous people
- Land use planning and mapping for nearly 2/3 of Ratanakiri province
- Research in 3 – 4 communes on specific components (i.e. CBNRM, eco-tourism, agricultural extension)
- Capacity development of the provincial government, line agencies and commune government



- Linkages with national agencies on policy (implementation) issues

#### STATE OF THE PROJECT

Current phase (phase 3) ends in December 2005

#### MAIN OUTCOMES, LESSONS, ISSUES, QUESTIONS, CHALLENGES

- One of the first examples of commune-focused CBNRM in Cambodia
- Commune maps approved by provincial government; working within governance structures to scale out CBNRM-type activities (perhaps the only example in Cambodia)
- Placed 'indigenous issues' on the table i.e. promoting greater respect for local cultures; PLUP for IP; communal land titling
- Illustrates the strengths and weaknesses of working through formal governance channels where roles and responsibilities related to NRM (among other things) are still be sorted out (a major challenge is the time taken to discuss and negotiate with / between line departments)
- Extensive documentation, including videos and a book of case studies related to CBNRM in Ratanakiri (facilitated by CBNRM LI). The extent to which these materials are translated into appropriate languages for local use, or are effectively targeted in terms of advocacy is less clear
- Team did not have adequate time to consider a sustainable 'phasing out' strategy with current work loads.

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### **PARTICIPATORY MANAGEMENT OF COASTAL RESOURCES, PHASES 1 - 3**

#### DATE STARTED

December 1997

#### MAIN OBJECTIVES

- CBNRM capacity building at the local level
- Integration of CBNRM into commune level plans
- Outreach and advocacy to decision-makers
- Sharing experience, skills and attitudes

#### FOCUS

- Initial focus on resource planning and management in several mangrove fishing communities within one protected area
- Small-scale livelihood activities
- Focus on community organizing and conflict resolution inside and outside the protected area (village and commune level)

#### MAIN STRATEGIES

- Initial workshops and project team sensitizing process, with an emphasis on environmental education and study tours with interested villagers
- Started community organizing work in several villages in 2000

- Piloting small-scale livelihood activities, involving the local resource management committees (crab fattening, mangrove replanting, home gardening, waste management)
- Current emphasis is on ecosystem-based management, which spans several administrative boundaries. This is part of a scaling up / out process.

#### STATE OF THE PROJECT

Phase 3, funding until 2007.

#### MAIN OUTCOMES, LESSONS, ISSUES, QUESTIONS, CHALLENGES

- Strong community organizations in pilot villages, self-initiating community-based management activities
- Good linkages with other projects in Koh Kong (in part, facilitated by 'connections' -  
- key staff left PMMR at the end of phase 2 for other coastal projects making collaboration easier; in part facilitated by length of time in area and strong leadership from project team leader)
- Small-scale livelihood activities were challenging to facilitate and implement. In part, lack of technical support; in part, lack of mentoring; in part, lack of supporting the 'right' livelihood options (villagers most interested in chicken and pig raising; PMMR encouraged other options as Danida CZM supported these animal raising activities)
- Challenging to get a strong provincial team in place, relies on national level
- Strong action orientation, one concern is if breadth of lessons are being appropriately reflected upon and shared
- Considering 'exit' strategies, on multiple levels (ensuring planning is within CC framework; ensuring funds for local activities; supporting and strengthening committees).

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### **COMMUNITY FORESTRY RESEARCH PROJECT, PHASES 1 - 2**

#### DATE STARTED

Started in 1999

#### MAIN OBJECTIVES

To build human resource and institutional capacity for community forestry

#### FOCUS

- Field based action research
- Using research results to support and change policy
- Strengthening inter-institutional learning

#### MAIN STRATEGIES

- Establishing community forestry in five different forest sites (protected area, FA land, different forest types), partnering with NGOs working in each area
- Creating management plans, and in one case, working on forest management

## THE FIVE IDRC PROJECTS

- Cross institutional linkages, working with MoE, FA and RUPP and various partners in each field site.

### STATE OF THE PROJECT

End of Phase 2, project ends in March 2006

### MAIN OUTCOMES, LESSONS, ISSUES, QUESTIONS, CHALLENGES

- Field tested and adapted process and knowledge for community forestry assessment, planning and implementation
- Key facilitator within the community forestry working group, an important body in getting consultation into the community forestry sub-decree process
- Produced a field facilitation manual, with key lessons from all field sites (in Khmer)
- Have worked extensively with one community forestry committee, Chumkiri, to address several forest management issues

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## CAPACITY BUILDING ON COMMUNITY FISHERIES MANAGEMENT, PHASES 1 - 2

### DATE STARTED

2002

### MAIN OBJECTIVE

To facilitate the development of community fisheries management in Cambodia through capacity building and networking

### FOCUS

- Understanding the nuts and bolts of community fisheries
- Training and reflection related to field work

### MAIN STRATEGIES

- Reflecting with CFDO staff on lessons learned related to community fisheries from their work with multiple donor organizations now working with CFDO
- For phase 2, linked to CBNRM LI as a means to provide on-going capacity and mentoring support
- Using pilot sites to better understand community fisheries, and to begin to strengthen DoF staff at the provincial level (Community Fisheries Units)

### STATE OF THE PROJECT

Funding until June 2006

### MAIN OUTCOMES, LESSONS, ISSUES, QUESTIONS, CHALLENGES

- Greater understanding of community fisheries is (i.e. concept and attitudes) and understanding the linkages between various donor projects working in community fisheries (although this understanding remains 'limited')
- Community fisheries notion was particularly abstract for many staff until linked to field sites (community fisheries new to many staff many of whom came from the

inspection unit of DoF); Staff could now talk about their specific field sites although were abstracting from these examples to the entire country (even though issues vary across the country).

- Challenge in keeping qualified staff (all projects have faced this, but this has been particularly true in the case of CFDO given the influx of ‘big’ donors)

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## **CBNRM LEARNING INSTITUTE, PHASES 1 - 2**

### **DATE STARTED**

June 2001

### **MAIN OBJECTIVES**

- Human resources development
- Knowledge building and sharing
- Partnerships and networking
- Institutional arrangements and policy support

### **FOCUS**

Exchanging ideas and learning surrounding CBNRM issues

National platform that draws in a variety of experiences (including field experiences)

### **MAIN STRATEGIES**

- Initially used case study writing and analysis as a means of bringing people together around CBNRM issues
- This mechanism also brought together the IDRC CBNRM projects
- Extensive networking and participation in a range of policy-related CBNRM issues (many national-level policy discussions)
- Provided an ‘independent’ platform for learning and sharing surrounding CBNRM, including first national-level CBNRM workshop in 2002
- Linking authors from various perspectives to produce the State of CBNRM text
- Establishing an independent learning institute to work on CBNRM, including a pool of trainers and researchers

### **STATE OF THE PROJECT**

Funding until 2007

### **MAIN OUTCOMES, LESSONS, ISSUES, QUESTIONS, CHALLENGES**

- Link together many organizations working on CBNRM issues (no other group that networks in a cross-sectoral manner and actively includes government, donors and NGOs)
- Case studies were a useful platform to draw in different actors working on CBNRM, providing an opportunity for local reflection upon issues. Distribution in English and Khmer had a wide impact. This process-oriented approach was designed to get people thinking about a range of CBNRM issues. Specific impact is hard to evaluate, as some felt case studies were not particularly ‘rigorous’, others felt they were too

controversial (government departments, as an example, that NGOs criticized). Perhaps the State of CBNRM book was a more serious 'academic' exercise (in terms of output)

- Produced the State of CBNRM in Cambodia
- Ability to train / facilitate a series of courses i.e. facilitation skills; TNA; case study writing; PC&I
- New institute, somewhat project driven (ensures funding). How to be more strategic with time?
- In focusing on partnering and networking, can be spread thin. Need to partner with field projects to ensure depth and continuous new learning from the field

## **PROJECTS' OUTCOMES**

If we generalize the outcomes from the individual projects we can identify outcomes at 4 levels. These four levels include (a) the field, (b) the project, (c) organizations and (d) policy. Each level will be examined in turn, and Table 2 (below) further illustrates these outcomes. Appendix C further illustrates how projects themselves perceived their overall outcomes.

As Table 2 demonstrates, the main project outcomes at the field level may have been in terms of arresting the degradation (and to some extent rehabilitation) of the natural resources in the areas surrounding villages and communes that projects worked within. The mapping work in Ratanakiri province, as an example, has arguably slowed down the rate of deforestation (outside loggers may be more nervous to cut in community areas recognized and supported by the government). In Koh Kong, villager and the PMCR team point to enhanced mangroves surrounding the villages. In Chum Kiri, one of CFRPs project sites, there are serious protection measures in place (perhaps at the expense of other communities, an issue in many CBNRM sites). In one of CFDOs sites, river fisheries are protected.

Another major outcome has been in strengthening communities' capacities to deal with natural resource management and to deal with claims from outsiders (from neighbouring villages or communes to dealing with those from the province or national level). Committee members are willing to confront illegal activities, and know that they have support at the provincial and/or national level (from project teams who are key members in relevant government departments) when necessary. This is not to suggest that all illegal activities can be stopped, but those committees that take their work more seriously are willing to take such risks especially when there is someone that they can turn to in case of strife (see Nong and Marschke, *in press*).

The mission has not been able to identify that many outcomes in terms of contributions to improved livelihoods (especially in terms of financial capital). There are examples of income generation related to ecotourism, such as in Yak Leom lake, Ratanakiri or home gardening of some households in Koh Kong; however, these examples are far and few between. Another example is NTFP collection in Chum Kiri, Kampot and mangrove snail gleaning in protected mangrove areas of near several villages in Koh Kong.

Nonetheless, wide-scale livelihood enhancement has not been observed. The PMCR project (phase two) points out the challenges in livelihood enhancement projects including lack of technical skills on behalf of the team (needing someone to mentor and stay in the field to work out solutions), outside interventions (in spite of good intentions) often do not encourage local ownership, and complicated marketing mechanisms that are not easy to penetrate. The agriculture-related work in Ratanakiri also highlights challenges in implementing, for example, pig raising.

At the project level (the national, provincial and local project teams), the mission finds many impressive outcomes in terms of enhanced understanding and knowledge of the teams to analyze natural resource management issues, and to support communities in dealing with these. As Table 3 illustrates, in this case for CFRP, project teams are working in a diversity of field sites with a range of partners. This wide range of field sites and partners ensures a diversity of observation and learning. Although not always written down, team members within most of the project teams could compare and contrast between field sites and experiences, providing an in-depth analysis and synthesis of relevant CBNRM issues.

**Table 3: An example of diverse research sites**

<b>Research sites</b>	<b>Forest ecotypes</b>	<b>Forest conditions</b>	<b>Field Partners</b>
<b>Chumkiri, Kompot</b>	Mountain degraded forest adjacent to agricultural valley	Outside protected area	CIDSE & Prov. Forestry Office, district ag. office
<b>Sre Ambel, Koh Kong</b>	Upland and riverine forest, forest still good condition	CF located within Samling forest concession	AFSC/ISLP & Provincial Forestry Office
<b>Kompong Seila, Koh Kong</b>	Slightly upland Degraded forest adjacent to Bokor National Park	CF boundary partly located in and outside Bokor National Park (Protected Area)	Provincial Forestry Office
<b>Kompong Kor, Kratie</b>	Degraded ex-concession forest beside villages on Mekong River	Outside protected area	KAFDOC and Provincial Forestry Office
<b>Boeng Per, K Thom</b>	Upland forest within the buffer zone of Boeng Per Wildlife sanctuary	Within the Boeng Per protected area	Provincial Environmental Department and Park Office

(Source: Gonsalves 2005)

It is at the more intangible level of attitude change that the mission believes major outcomes have occurred, with much greater confidence from team members expressed as summarized in Table 2.

Key team members in each of the projects, perhaps with the exception of CFDO (whose members perhaps had a longer way to go, and in some cases are improving), have

excellent facilitation skills. This skill set cannot be underestimated (and we recognize this is hard to effectively evaluate given that we did not go to the field to watch ‘facilitation in action’ on this mission): facilitation demands an understanding of local nuances, an ability to think on one’s feet and an ability to engage people. There is a pool of facilitators that have benefited from the action-research approach taken by IDRC projects (for example, a careful examination of the natural resource and environmental mainstreaming approach at the commune level highlights the usefulness of an action-research approach drawing initially on work in Ratanakiri). With effective facilitation skills, a host of other training courses can be given (such as case study writing, training needs analysis, participatory research techniques).

IDRC partners summarized this change as shifts from: passive – active; selfish – caring; keep for yourself – sharing; power over – power with; following without questioning – questioning; know everything – learn from others; teach – learn from each other. Considering the hierarchical, top-down nature of Khmer society (refer to initial section on Khmer culture), breaking out of cultural norms to combine/embrace other ways of doing things is an example of a longer-term learning and behavior shifts.

Assessment of project outcomes in terms of changes in the affiliated (‘parent’) organizations are many and vary with each project and the nature of the organizations involved. In some cases it is difficult to establish the relative contribution from the IDRC project as compared to contributions from others (e.g. the greater attention to community forestry in the Department of Forestry, Royal University of Agriculture (RUA) to which other projects may have contributed at least as much or more to).

Much of the integration of CBNRM into formal legislation (*Law on Management and Administration of the Commune; Community Forestry Sub-decree; Community Fisheries Sub-decree*) or policy (2001 Fisheries Reform; Participatory Land Use Planning (PLUP)) which will be discussed later in this paper was informed by early experiences with community-based management in Cambodia. Several projects, such as those funded by IDRC, FAO and GTZ, began working on community-based management in the 1990’s. This initial community-based management work was experimental: community members, NGOs and/or government facilitators worked on understanding what resource management could look like ‘on the ground.’

More specifically, the community-based management work within Indigenous Peoples in Ratanakiri province (supported by IDRC/UNDP/SIDA) has informed much of the approach towards incorporating natural resource management and livelihood issues into Cambodia’s decentralisation program. Efforts to mainstream resource management and environmental issues (NREM) into commune development plans began in 2003 within 40 communes in three provinces, expanded to 75 communes in six provinces in 2004: NREM mainstreaming will include 11 provinces in 2006.

Other community-based management experiences have fed into policy creation, supporting community forestry and community fisheries processes. For example, the FAO-Siem Reap community forestry and fisheries project perhaps helped to spark

Cambodia's 2001 Fisheries Reform. The PMCR project also fed into this reform process, most notably when bringing the Minister of Fisheries and Minister of Environment to Koh Kong to visit villagers working on CBNRM issues in the spring of 2001.

Another example of how earlier 'on the ground' experiences influenced policy is the PLUP process. Linking land management and natural resource management together, PLUP guidelines emerged from a series of workshops with community forestry and fisheries facilitators and government officials that took place between 1999 and 2001 (a process facilitated by GTZ, in which the IDRC Ratanakiri, CFRP and Koh Kong project members took part in). This PLUP process is now officially endorsed within the Ministry of Land Management, Urban Planning and Reconstruction.

The work with different ethnic minorities in Ratanakiri (IDRC work, along with other actors in northeastern Cambodia) over the past decade has forced the national government to consider issues in relation to Indigenous Peoples and the environment. The IDRC work in Ratanakiri served as a model for PLUP for Indigenous Peoples.

The Ministry of Interior changed its planning guidelines to be more focused on natural resources and environment. Project staff who used to work in Ratanakiri reportedly contributed to such changes in major ways.

The projects have worked beyond a national level, to a regional level. Perhaps the most obvious example of a project influencing a regional organization is the earlier phase of CBNRM LI which focused on case study writing. After participating in an initial training in case study writing, a trainer from RECOFTC, Thailand asked CBNRM LI if they were interested to turn this course into an international training course on writing and analysis. Thus an independent consultant, members from CBNRM LI and RECOFTC participated in designing a case study writing course for the regional level, based on project work in Cambodia. A training manual was also produced as a result of this collaboration.

The mission wishes to note that even if only half of the outcomes mentioned in Table 2 can be attributed to the IDRC projects (and we firmly believe that evidence can be produced for a figure closer to 90%), that this represents a rather rich harvest, particularly when compared to the total investment made by IDRC over the past decade.



**Table 4: Key Project Outcomes**

<b>Field</b>	Resources	Decline of natural resources has slowed down (forest and fish)
		Resources have improved (forest near villages; flooded forest led to an increase in crab species)
	Livelihood (economic capital)	Generally not, but some exceptions (i.e. poorer hhs in Koh Kong have access to mangrove snails / gleaning opportunities in rainy season as a result of protection measures; forest products for local use in CFRP sites and eco-tourism at Yeak Loem in Ratanakiri)
	Communities	Functioning committees in research sites
		Enhanced understanding of resource issues
		Enhanced capacity to deal with external actors
<b>Projects</b>	Knowledge	Deeper knowledge (start caring about things)
		Wider knowledge (natural / social science; CBNRM perspective)
	Capacity for action research / learning	Get knowledge, analyze, articulate
		Facilitate learning processes at the community level
		Facilitate training courses for other field workers
	Attitude shift	Passive – active; selfish – caring; keep for yourself – sharing; power over – power with; following without questioning – questioning; know everything – learn from others; teach – learn from each other.
<b>Organizations</b>	Commune	Awareness – capacity to deal with CBNRM
		Some operational role in CBNRM
	Province – Governor	Support (Rat / KK)
		Capacity to deal with issues / negotiation (Rat)
	Province - Line Departments	Increased awareness of roles and responsibilities
		Individuals and institutions (e.g. in CFRP sites, agricultural extension for NRM now discussed; similar examples in other sites)
	Province – Partner NGOs	More / better collaboration (alliance / platform; various forms)
		Some shift in approach (less confrontational, more respectful of local voice)
	National	Community rights in PAs
		Putting IP on the national agenda (communal land title)
		MoE, program capacity and development
		MAFF, indirect outcomes in FA and DoF
	Universities	RUA, more attention to and knowledge of community forestry
		RUA / RUPP, more CBNRM graduates

<b>Organizations</b>	Program	Staff in different programs (Seila NREM; MoI; Min Land; Seila KK; Danida CZM)
		Mainstreaming of NREM into CBNRM 'Action Research' mode
		Changing planning guidelines of MoI
	Donors	Have influenced SIDA, Danida CZM; Danida NREM
	Regional - Recoftc	Training programs (case study writing) and materials (writing manual)
<b>Policy</b>	Regional – LeaRN / SL	Cambodian partners contributing to such discussions, and sometimes facilitating in such forums (i.e. CBNRM LI in recent LeaRN forums). Not always a one-way flow of information from one country or organization.
	Changes in knowledge and capacity for policy	State of CBNRM: platform and agenda
		Laws / regulations: relevant knowledge contributed to processes (some impact?)

## LESSONS FROM THE PROJECTS

There have been many significant outcomes in relation to these projects (as Table 4 illustrates). These outcomes enable us to ponder on positive and negative lessons in relation to our analysis of these projects.

The mission is most concerned with the rather limited outcomes in terms of ‘better livelihoods’. It seems that the projects have been more successful in community based natural resource protection rather than management. Some of the reasons for the challenges in livelihood enhancement have been suggested (complicated marketing chains, limited technical know how). Perhaps another reason for the focus on protection rather than management is that protection in many ways is ‘easier’ to get a handle on (for community members, for government departments, for project staff). Encouraging communities to patrol and protect their resources may be easier than to work closely with villagers on different livelihood trials and management options (this requires another level of field work, with consistent monitoring). Even within the most field intensive projects, the amount of time spent in the field does not tend to be consistent.

Another issue is the relatively low number of women involved in most aspects of project work. Although the environmental sector tends to be male dominated (especially in government departments), this is slowly changing. Far more opportunities need to be given to women to participate in project teams, especially in leadership positions or in encouraging mentoring opportunities. The one exception to this can be found at the CBNRM Learning Institute. At the village level, a few women are involved in resource management committees. However, project teams could do a far better job of targeting rural women in various aspects of CBNRM work (e.g. women’s self-help groups, working on marketing and livelihood issues).

Although the Ratanakiri team felt that their CBNRM work was different with indigenous people, it was harder for the review mission to understand just how CBNRM looked different within indigenous communities. Certainly methods and approaches are similar. We believe that ethnicity is an important aspect of CBNRM, and this analysis could be taken further (some of the nuances may be well understood by researchers, and aspects of ethnicity may be difficult to articulate). There is no doubt that the work in Ratanakiri has done an excellent job of promoting the needs of indigenous people. Surprisingly, little materials related to ‘sensitizing outsiders’ related to working with indigenous people on environmental issues can be found. Likewise, little analysis of the differences between ethnic minorities is found. On the other hand, there is surprisingly little analysis of differences between communities within all field sites, with the exception of an analysis of three village management committees in PMCRs site and the experiences of several commune CBNRM projects in Ratanakiri.

To draw out other lessons, a more detailed discussion considering the project approaches and organizational arrangements is necessary. The following section compares ‘comparable projects’ such as Ratanakiri and Koh Kong, and then the community

forestry and community fisheries projects. The CBNRM Learning Institute is discussed separately since it is a synthesis project.

#### 1<sup>ST</sup> GENERATION PROJECTS: RATANAKIRI AND KOH KONG

The similarities in conditions between Ratanakiri and Koh Kong are to some extent reflected in the approaches and strategies adopted. But there are also interesting differences, including the institutional affiliations and the organizational arrangements for project implementation.

##### *Ratanakiri*

In Ratanakiri, the IDRC project was originally affiliated with the Seila (later PLG) program, and hence the provincial government and its provincial rural development committee. The main objective was to develop ways and means for the provincial government to address natural resource issues, particularly in enhancing security of land tenure of indigenous, customary land users. This required the project to work at three levels: the community level, the provincial level and the national level.

- ❑ At community level to assist communities to map traditional user areas and develop rules and regulations for the management of these areas. This was complemented by assistance to communities to present this information and negotiate recognition and support from provincial government.
- ❑ At provincial level the project assisted the provincial rural development committee to deal with these issues, and interpretation of the emerging legal framework. The project also collaborated with other development organizations active in Ratanakiri, through joint studies and providing a platform for dialogue with the provincial government.
- ❑ At national level, a two-pronged approach was pursued in which the project established linkages with important national agencies, actors and policy discourses. This approach was complemented by inviting policy makers and senior administrators to the area for first hand observations and a dialogue with community representatives. Engaging national actors has always been challenging given how isolated Ratanakiri is from the rest of Cambodia and the diversity of ethnic minorities found in this area (including breaking down government prejudices towards ethnic minorities).

In the last (present) phase of the project, the approaches developed through pilot (action research) activities were scaled out to nearly two-thirds of Ratanakiri province (financed by SIDA), with complementary research activities (co-financed between SIDA and IDRC) in a limited number of sites. In interviews the Ratanakiri team reported that maintaining the balance between ‘research’ and ‘mainstreaming’ was a major challenge. It was perceived that ‘provincial mainstreaming’ had somehow crowded out the ‘community based learning and action’. Although the emphasis in Ratanakiri perhaps began with village and commune work, and linking this to the provincial government by

the last phase of this project, project team members were spending much of their time working at the provincial level (as brokers, in many cases trying to explain the reality of life in Ratanakiri to national level government staff).

Another issue is related to the co-funding of research activities. In the course of the Ratanakiri project, different interpretations of the type of research required (or allowed) emerged. That is, the ‘action research’ approach supported by IDRC was different from SIDA’s approach to research (hence, a formal research component was added to the project). These varying perceptions proved hard for team members to reconcile. Donors and/or academics may appear to endorse ‘participatory processes’ that support ‘action research’: however, the reality that such an approach is iterative, time-consuming and does not always produce immediate ‘results’ can lead to a dismissal of ‘action research’ approaches and place pressure upon research teams to speed up their research and results.

### *Koh Kong*

In Koh Kong, a more informal, exploratory approach was pursued in all of these aspects (working at the local, provincial and national levels). Here the project was (and remains) affiliated with the Ministry of Environment. The national team works together with a provincial team (coordinated by the provincial MoE), initially focusing on communities within a protected mangrove area and now (in phase two and three of the project) working with communities outside the protected area (PA).

In accordance with the PA status and as part of changes in the wider regulatory environment (e.g. 1999 logging ban; decision in DoF to no longer grant shrimp licenses in Koh Kong province), both charcoal production and shrimp farming were banned. Considering that many ‘internal migrants’ were lured into this area with the hopes to ‘exploit’ natural resources (Marschke and Nong 2003), a shift in mindset was required for those households that remained in the area given that opportunities related to resource exploitation had significantly diminished. This led to the need to develop and explore other livelihood sources, particularly in the fisheries sectors.

As compared to Ratanakiri, customary land tenure arrangements were less developed and Koh Kong was not one of the decentralization pilot sites (Seila only began working in Koh Kong in 2003).

All these factors together contributed to a greater attention and investigation of the livelihood strategies of households and the facilitation of village level organizations for the protection of natural resources and the initiation of a range of innovations to improve livelihood conditions.

The project thus was able to investigate differences amongst families in livelihood strategies, and other differences in context, and how these would lead to different priorities and arrangements in village management committees. This investigation was also assisted by the involvement of a Canadian master’s and later PhD student, focusing on these aspects.

After the formation of commune councils in 2002, mainstreaming started to become an issue, and now receives some emphasis in the present phase of the PMCR project along with experimentation on cross-commune boundary resource management arrangements.

One challenge this project has faced is building and sustaining capacity at the provincial level. Although during phase two of PMCR project ownership was meant to be transferred to the provincial level, provincial staff with leadership capabilities necessary to coordinate this project (inter-departmental, at multiple scales) was difficult to foster. Hence, the project remains driven from the national level (although the current phase of PMCR is attempting to change this).

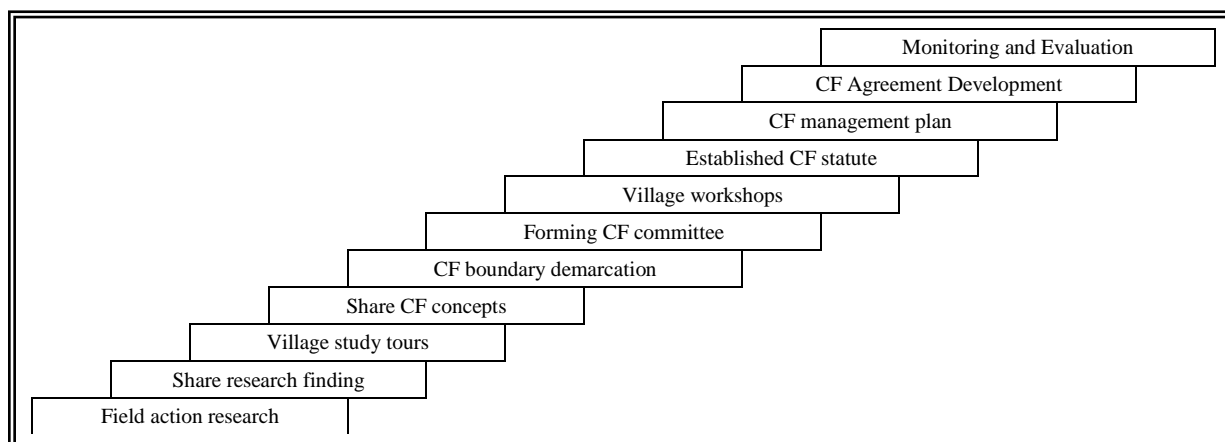
## 2<sup>ND</sup> GENERATION: COMMUNITY FORESTRY & COMMUNITY FISHERIES

Based on the lessons from the projects discussed earlier, as well as the opportunities provided by the establishment of community forestry offices within MoE and MAFF's Department of Forestry (now the Forest Administration) and the creation of the CFDO office in DoF, a second generation of projects evolved focusing on specific resources and sectors.

### *CFRP*

Initiated in 1999, the community forestry research project set out to explore and develop effective community forestry development approaches in 3-4 sites, with the project team comprising of staff from the MoE, and MAFF (Community Forestry Office, Forest Administration and the Faculty of Forestry, Royal University of Agriculture). Draft guidelines for community forestry development had at the time been developed (by projects and consultants) and these formed the basis for the projects' work after an initial more exploratory 'farming systems research' attempt. At the local level, a development partner was sought in an NGO or project working in community forestry, complemented with staff from relevant provincial line departments.

The project is housed in the Ministry of Environment, and managed by a management team comprising staff from the main partner organizations. Conditions and partners vary considerably between the sites (see Table 3). The community forestry development process in all sites follows a series of steps that are summarized in the graph below (Table 5). Some of these sites were selected at later points than others: the Chumkiri site has been going on since the start of the CFRP project (1999).

**Table 5: The Community Forestry Development Process**

(Source: Gonsalves 2005)

CFRP has mapped out an approach to the forest of community forestry development. This type of ‘process’ can be found in most of the CBNRM research sites (for community fisheries, for CBNRM, for Participatory Land Use Planning and for community forestry). While mapping out such an approach runs the risk of CBNRM activities being rather ‘rigid’, such mapping has been an important aspect in explaining how community forestry or community fisheries works to relevant government departments and donors.

Another interesting innovation is the adaptation of a framework of criteria and indicators to assess and monitor progress of community forestry regimes towards greater sustainability, efficiency and equity. The introduction of this framework was facilitated with the Learning Institute. The experience has been used by the institute to propose a similar approach for the national community forestry program.

In a mid-term evaluation of phase 2 of CFRP, Gonsalves (2005: 15) with regards to progress in each of the sites concludes:

“More needs to be done to expedite these [community forestry] processes. Also, it is important to note that without clarity of tenure rights, motivation and commitment will be adversely affected. Clearly this cannot be left to the research teams themselves. The CFRP hierarchy (at higher levels) should be engaged”.

Nonetheless, here is no doubt that there is a clearer sense of ownership of natural resources each of the CFRP sites.

In terms of organizational arrangements, the one aspect that has (and continues to) generated the most discussion in relation to CFRP is the multi agency aspects of the project with regards to management, learning and sharing. An important consideration for this multi-agency arrangement was that at the time of the project design, MoE had had considerable experience with community based approaches, and the understanding and commitment from MAFF was at that stage not clear.

Given that legislation for community forestry falls under the Forest Administration, and that the Ministry of Environment is ‘weak’ in comparison, the implications for how serious these research results are taken may be in an issue. More than this, coordination between Ministries and the university is time-consuming. Experiences in project management and operation have demonstrated considerable trade offs between the expected benefits and the transaction costs in management in terms of ownership of the process and outcomes.

### *CFDO*

Initiated in 2002, the CFDO support project was designed to build the capacity within the Department of Fisheries (DoF) to implement the 2001 Fisheries Reform initiated by Prime Minister Hun Sen. This Fisheries Reform led to the creation of the Community Fisheries Development Office (CFDO) within DoF and the focus on creating an appropriate policy environment to support the Fisheries Reform, including the *Community Fisheries Sub-decree*<sup>7</sup>. Thus, given these significant changes that CFDO faced, an important objective was to support CFDO at the national level in achieving its newly formed mandate, and to also build the capacities of the Provincial Community Fisheries Development Units (also newly formed). The design of CFDO appears to address the missing deconcentration dimension in the decentralization process.

According to some observers, the creation of CFDO has been too successful and contributed to a ‘brain drain’ (attracting the best and the brightest) from other parts of the Department of Fisheries to the Community Fisheries Development Office. Others attribute this to the influx of projects in community fisheries, and see CFDO’s capacity to handle that many projects as another indicator of success in capacity building.

The management of multiple projects by CFDO has placed some strain on the IDRC project activities as it has become a small project amongst other and larger projects. IDRC project staff have experienced this ‘brain drain’ (the flip side of this is that this may be an indicator of build capacity – although in the case of CFDO the time span may not have been adequate) as key staff left the project when more lucrative opportunities were offered within CFDO through the emergence of other donor projects. Though efforts have been made to assist in the development of a program approach in CFDO, recent indicators suggest that this has not been very successful.

An aspect of considerable interest to other CBNRM initiatives is the explicit recognition of the need to assist in defining the roles and build capacity of the provincial community

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<sup>7</sup> Significant challenges exist in creating the *Community Fisheries Sub-decree* (only passed in 2005). For example, during the consultative process, debates between local fishers (representatives from coastal and freshwater areas) and Department of Fisheries staff were intense. Although members of the CFDO office might have understood the needs of small-scale fishers, members within the Department of Fisheries were largely unreceptive to granting significant rights to community members. Issues that were particularly contested was a communities’ right to exclude people within its’ fishing grounds, patrolling issues and income generation (e.g. can communities grant fishing rights within their area to private businesses?). In most cases, the Department of Fisheries was not willing to make any changes to the latest draft, leaving fishers and donors frustrated with the consultative process (for more information, see Marschke 2005).



fisheries development units (CFUs). The team reported considerable constraints in effectively supporting such shift in role of CFUs from inspection to technical support, related to incentives and to capacity issues. More in depth investigation of these constraints and identification of possible ways to address these would be of relevance to all CBNRM initiatives.

Another set of issues is related to the ‘project pilot sites’ and their function. It could be argued that the other projects create enough opportunity for field-based learning and that therefore the IDRC project should focus on capacity building and research activities in these larger project sites. However, it appears that the need for ‘project ownership’ at the field level pervaded, leading to some piloting activities.

### *3<sup>rd</sup> generation: CBNRM Learning Initiative*

This initiative (since 2005, an institute) started in 2001 to support CBNRM practitioners in (a) capacity building, (b) documenting and sharing knowledge gained from CBNRM development activities, (c) supporting networks and partnerships amongst actors and stakeholders in CBNRM and (d) supporting policy dialogue and development.

The Learning Institute supports the Ratanakiri project, CFRP and CFDO in capacity building and assistance in analysis of experiences and documentation and sharing of lessons. As the summary of their recent publication indicates, the CBNRM Learning Institute is well on its way to demonstrate the inter relationships and exploit the synergies between the various IDRC projects as well as with relevant other CBNRM initiatives (CBNRM LI 2005).

The contours of such program are sketched in terms of the overall regulatory framework for CBNRM, including its shortcomings. For example, one chapter sketches the role and nature of natural resources and environmental management in the decentralization process (focusing on commune level planning processes). The state of regulations and program development in community fisheries, community forestry, participatory land use planning, community based ecotourism, and community protected areas are also explored. The book also reflects on ‘process’ or ‘method oriented’ contributions such as case study writing, participatory action research, local planning processes, conflict management and community organizing. For the future, a focus on governance, land and resource rights, and sustainable livelihoods is proposed (see Appendix D for more details on the Learning Institute).

The work of CBNRM LI demonstrates the potential of a more programmatic approach to develop research, capacity building and program development in CBNRM. However, in taking this holistic approach in CBNRM work (which this team would argue is much needed) LI does face serious challenges in mobilizing, maintaining and developing ‘indigenous’ as well as ‘imported’ capacity. Another challenge is balancing demand driven service delivery with thematically inspired program development and maintaining its credibility with a wide range of actors.

## THE PROJECTS COMPARED

Community-based management approaches in Cambodia do share certain characteristics. This is found across IDRC field sites, and was illustrated in Table 5 in terms of the community forestry committee development process endorsed by CFRP. There is an emphasis on the promulgation of rules and regulations; formation of resource management committees to guide community-based management initiatives; thumb printing villagers who support such work; establishment of demarcated areas for management; and collecting official signatures from the commune, district and provincial or national level, as appropriate. However, although the structures on paper regarding management plans and approval mechanisms are similar, experience shows that what is happening ‘on the ground’ may be quite different in different areas – even between different sites in the same area (Marschke 2005).

Capturing these differences and the subtle nuances is challenging! That is, to analyze the reasons for such differences and to articulate the implications for the nature of ‘support programs and policies’ remains a major challenge. Such a challenge is unlikely to be met through various small projects operating without too much interaction, joint sharing and learning. This is why the review mission advocates that IDRC recognizes the work of the five CBNRM projects, and advocates for the emergence of a CBNRM ‘research’ program.

The nature of the future challenges for this CBNRM ‘research’ program can also be illustrated by looking at the ‘issues not raised’ or ‘questions not answered’ by the projects.

## OUTSTANDING ISSUES AND QUESTIONS

It is obvious that not all of the issues in CBNRM can be raised, translated into research questions and then answered. But this begs the questions: (a) how do projects decide on what issues are more important than others, and (b) how do they find ways and means to generate answers to those questions that are selected?

The main issues that were not raised within the projects are related to:

- a. sustainable exploitation of resources for improved livelihoods, including marketing and processing of products and services,
- b. the analysis of informal rules guiding behaviour of different stakeholders towards natural resources, and how these could form the basis for ‘community organizing’,
- c. the role of national and provincial - local teams, in terms that could assist in designing deconcentration strategies in line agencies,
- d. the limitations of a community based approach, and the lack of multi-scalar approaches (with the exception of particularly Ratanakiri and more recently Koh Kong),

The last point reinforces the earlier noted need for more ‘substantive’ (at the level of research question and research approaches) interaction between the projects. Such enhanced interaction could build on joint capacity building initiatives, coordinated by the Learning Institute and/or regional initiatives, but with a greater focus on ‘research’ than at present.

The reasons for the often-observed focus on resource protection (including protection from outsiders) are many. Some communities may actually be more interested in preventing outsiders from destroying their resources (or reducing their access) than in more intensive exploitation or value addition to the products of their resources. And there is the issue that communities first need to be sure that the resources will remain theirs, if they are to invest time and effort in improving them. There are also issues of capacity building both at community level (outright protection is easier to control than regulated use), and of the ‘facilitators’ who need to build their capacity for the more challenging management aspects.

So in this sense the emphasis on ‘protection’ could be perceived as a ‘first step’ towards CBNR Management (note that this is more of an issue in forestry than in fisheries, although this protection emphasis is also founding the fisheries!).

But there may also be other reasons for this emphasis. Reasons related to restrictions in the regulatory environment (no ‘commercial’ exploitation in the first 5 years in relation to community forestry), or to the tendency to allocate degraded resources to communities and keep the access to high value resources to parties who are expected to produce a better rent.

We conclude that a mixture of reasons was operating but that there are now more opportunities for more intensive (but sustainable) exploitation of resources. To exploit these opportunities other forms of project affiliation may need to be explored, as well as more deliberate selection of sites and partners.

Regarding the institutional aspects of community organizing, this refers to the difference between the ‘standardized’ approach to forming natural resource management committees, as compared to what actually happens on the ground, referred to earlier.

The main challenge here is to recognize and build on the rules that are guiding peoples’ behaviour towards natural resources, and support the articulation and development of these in response to changes in the environment. Later in this report, we offer more comments along with tentative suggestions on how this issue could be addressed in a more systematic manner.

In three of the projects (PMCR, CFRP and CFDO) the interaction between local / provincial teams and ‘national’ teams is a central aspect of the projects. In view of the urgent need to match the political decentralization with administrative decentralization (and to feed field tested experiences into the emerging organic law) there seems to be a

great opportunity here to more clearly define the changing roles and responsibilities between the national and local level offices. As well as the need for and nature of capacity development at both levels.

The need for addressing the ‘community and its resources’ in the context of the wider (physical and institutional) landscape is most vividly demonstrated by CFRP’s experience in Chumkiri. Here, the protection of a small community forest has resulted in increasing pressure on the neighbouring forest not protected by the community (but as one of the CFRP team members noted ‘protected by the FA’).

Both in Ratanakiri and in Koh Kong, the wider environment of the communities and their resources is being addressed in different ways. Both the NREM approaches and the approaches advocated under the ‘partnership forestry’ approach, as well as landscape approaches piloted by conservation organizations could yield better insights on how to address the need for ‘multi-scalar’ approaches within community based management, in a more systematic manner.

#### THE ROLE OF TECHNICAL ASSISTANCE (‘CBNRM SPECIALISTS’)

In Ratanakiri, the former phases of Koh Kong, and in the Learning Institute, the crucial importance of ‘CBNRM specialists’ has been clearly demonstrated. This importance is also brought out by comparing the situation with the one in CFRP and CFDO in which such daily ‘field oriented’ technical assistance was less prominent, for different reasons.

Different arrangements for TA prevailed in the different projects:

- a. In CFRP a part time advisor, focusing on project management assistance, with limited direct field work was assisting the project in planning, management, documentation and maintenance of linkages with other initiatives. In view of the ‘multi-institutional’ set up of the project and the different arrangements in a variety of field sites this type of assistance was much needed and took most of the consultant’s time (that was also decreasing over time). Informally, the need for more hands on, field research based mentoring was acknowledged at an early stage (referring to the involvement of Canadian MSc students in e.g., Koh Kong) but never materialized.
- b. In CFDO, technical assistance is provided through the CBNRM Learning Institute and LeaRN (based in Manila, the Philippines), focusing on planning and training, and occasional assistance in action research.
- c. In the earlier phases in Koh Kong (and apparently continuing in the present phase) MSc students from York University and Dalhousie University were actively involved in field (action) research, and the team leader of the project acknowledged that this assistance had been of crucial importance in asking the right questions, assisting the team in developing methods to address these questions and building the team’s capacity and confidence in action research. Also, their active involvement in field based research and development, helped much in the reflection, analysis and documentation.

- d. In Ratanakiri, this type of field based research was provided by international project staff and consultants, playing a similar role as in Koh Kong.
- e. In the Learning Institute, two international advisors with field based experience (one in Koh Kong) are playing a similar ‘mentoring’, ‘coaching’ and ‘networking’ role as in Koh Kong (but adapted to the different context).

Then there are additional layers of technical assistance in the form of a university based program officer, ‘brokering’ the need for research assistance with the ‘supply’ of the right students. Or in the form of other program officers mobilizing the right type of consultants (as in the case of Ratanakiri).

The Learning Institute is increasingly playing a complementary role, particularly in analysis and documentation, and in capacity building/training.

One of the key questions for future programming is to what extent and how fast the CBNRM LI can take over the various roles that are implied in the ‘TA’. In answering this question, the need for program and capacity development within LI (including the crucial role of international advisors in that development) needs to be considered as well.

This mission, based on the interviews with project staff (both from LI and the other projects) believes that in the short to medium future their role is best defined (see also LI’s program objectives) in terms of analysis, documentation, networking, capacity building and policy influence (but note the way this is phrased at present in LI’s strategic plan, in terms of ‘providing knowledge about policy processes to researchers/practitioners’).

This leaves one bundle of roles undefined and that is the identification of relevant research questions, the design of robust (theoretically grounded) action-research activities, and the ‘hands-on’ mentoring of research teams.

The lessons from the projects indicate that greater sharing of concepts, approaches and methods would be beneficial, both for the relevance and quality of the work in individual projects and for the purpose of enhancing chances of institutionalization of innovations in policy and national programs.

The other lesson is that the mission has noted a dearth of analysis and discussion of the different arrangements for technical assistance. It is surmised that one reason for this surprising lack of debate on a key element for success could be the perceived need to maintain the Cambodian ownership of IDRC projects, expressed in fears of dominance by ‘expatriate advisers’. The mission’s discussions with project staff indicate that there is considerable awareness of the need for both international technical assistance/collaboration and for national ownership. And that the manner in which IDRC has been able to provide for both is one of its strengths.

In discussing the ‘options for the future’ we will also revert to future arrangements for technical research assistance.

## INSTITUTIONAL AFFILIATION AND ORGANIZATIONAL ISSUES

In four out of the five projects the Ministry (and its provincial departments) of Environment played a leading or prominent role. In terms of its commitment to community based or participatory approaches, this has proven to be advantageous. Also the 'environmental' mandate may be more commensurate with an integrated resource or area-based approach than in the more sector-focused agencies. Certainly in three of the projects (Ratanakiri, PMCR and CBNRM LI) one can see the broad articulation and, in the case of Koh Kong and Ratanakiri, experimentation with a range of CBNRM-type activities and research considerations.

There are also downsides to such rather one-sided affiliation. The first is that the agencies that 'own' the relevant programs (such as community forestry, land management, and fisheries) may not recognize or own the outcomes of the research activities generated by other agencies. The other possible downside is that 'production' is not the main mandate of the Ministry of Environment and if future projects were to move more into that direction then the more production oriented agencies may need to be involved.

However, as the example of the CFDO project demonstrates there may also be downsides in moving research activities too close to an office implementing projects (or even programs). And the Ratanakiri experience seems to indicate other problems in balancing implementation and research, this time at provincial level.

The design of CFRP seems at first sight to represent an effective approach to deliberately exploit the strength of weak (and multiple) linkages. But at the price of considerable transaction costs during project management and possibly reduced effectiveness on the main target agency.

PMCR demonstrates some of the organizational requirements for a successful CBNRM project:

- strong and effective support from the leadership of the organization,
- such support expressed in strong and dedicated leadership and management of the national team,
- effective research support at field level, to assist in designing strategies and building of capacity.

The first two criteria are not easily 'produced' through clever programming (though they may be considered in the design, as in the case of CFRP), the third characteristic is easier to control, and we will later build on that.

The Learning Institute's organizational set up has been designed based on its functions, and thus one would expect their organizational arrangements to be best suited for its mandate. That strength may also be its weakness, in that its survival depends entirely on

the recognized salience of its functions, effectiveness of its performance, and quality of its products and services.

Its contributions to the emerging Cambodia CBNRM ‘program’ have been mentioned already. These contributions may become even more important and challenging in the future. It is proposed that IDRC programming complements CBNRM LI efforts in this regard, and explores greater synergy in its future identification and design of individual projects.

As we’ll discuss later in more detail, there is a need to better align the ownership of the issues with the institutional ownership or affiliation, particularly in CFRP and to a lesser extent in Koh Kong and in Ratanakiri (depending on decisions about its future and its future focus).

#### SALARY SUPPLEMENTS<sup>8</sup>

One of the organizational issues, apparently generating perennial debate, refers to the issue of salary supplements. The mission assumes that there is no need to recapitulate the various cons (easy to formulate, but difficult to address in practice) and pros (impossible to justify, but inevitable in practice) in the debate.

The good news is that the donor community and the government are in complete agreement with both the pros and the cons. Hence they have designed a two track strategy:

Track 1: phase out the salary supplements, “pool” and fund merit-based pay reform pilots in ministries/sectors that are “ready”<sup>9</sup> (quotation marks from original source!).

Track 2: rationalize salary supplements in sectors that are not ready for Track 1. This implies:

- Technical Working Groups will collect information on rates and practices by donors in the sector concerned,
- TWG’s will facilitate agreement on a strategy for alignment and harmonization of rates and practices.

Note that the difference between the two tracks is largely a matter of administrative sophistication, but otherwise budget neutral from a donor perspective.

Everybody seems to agree that:

- a. US \$ 26 for a government worker is not enough to survive,
- b. A huge increase in the government’s revenue generating capacity is not expected on the very short term.

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<sup>8</sup> See for more details: [http://www.cdc-crdp.gov.kh/cdc/gov\\_workgroup.htm](http://www.cdc-crdp.gov.kh/cdc/gov_workgroup.htm).

<sup>9</sup> ‘Ready’= credible reform program agreed by government and donors; and agreement on phasing out salary supplements, the pooling approach (% donors-government), and details of pay and employment reform.

The mission has no better advice to IDRC with regard to this issue than to be in touch with the relevant TWG's at the stage of project preparation and receive their advice as to current 'best' practices in the sector concerned<sup>10</sup>.

## CONCLUSIONS

In view of the limited resources available to projects, the outcomes of the projects in terms of knowledge and capacity at different levels (community, organization, program and policy) have been many, relevant, and represent considerable contributions to development in Cambodia.

The mission therefore concludes that it is important to build on the reasons for this success in the design of future activities.

It is also apparent that for three of the five projects reviewed, the opportunity for improved design will need to be exploited so as to enhance their future effectiveness.

For CFRP (or any similar future forest related set of activities), the involvement in the initiative by MAFF/Forest Administration should be secured in a manner that is more likely to enhance FA's learning from project activities, both at central and at local (provincial and lower) level.

For CFDO the concern is whether IDRC projects/activities can be designed that can make a significant difference as compared to many of the other projects managed by this unit. A second concern is related to the possible involvement and contributions from other units in the Department of Fisheries.

For the resource management project in Ratanakiri, there is a need to establish a clearer focus for project activities, as well as revision of joint funding mechanisms. A possible focus to be explored is on 'communal land titling', particularly if other donors confirm that they would welcome such focus from an IDRC initiative.

For Koh Kong, the concerns refer to their need to develop the capacity of a new team, as well as the need to more systematically address the development of provincial, district and commune level capacity. This is compounded by the project attempt to 'scale up and out' and the interest from other actors in Cambodia to benefit from Koh Kong's experiences.

For CBNRM LI there is less concern about design of future activities, and more concern about the challenge of the young institute to balance the need for relevance and growing expectations of their contributions to the CBNRM process and program, with the need to

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<sup>10</sup> In early 2005, 'ready' sectors included planning and finance, trade facilitation, and possibly d&d, land and health.



develop its own capacity and maintain the level of both ‘indigenous’ and ‘imported’ capacity.

The mission is tempted (as per some of the statements in its ToR) to recommend that CBNRM LI be supported to gradually become the main focus of IDRC future programming in Cambodia. The main reason for the mission’s caution is that it believes that this type of recommendation could easily become self defeating, and could damage the institute’s potential to realize the dreams of its well wishers (including the members of this mission).

The main issue for all projects and therefore the main challenge for future programming is how to provide more effective and systematic or programmatic ‘research’ support. There clearly is a need for all projects to shorten their learning cycles, to learn better and more effectively from what has been tried elsewhere, to assist in the understanding and analysis of the complexities of CBNRM (or ‘governance’, or ‘tenure’ or ‘livelihoods’). Experience has demonstrated the need for ‘research mentors or coaches’ that are available for advice and feedback at all stages of the ‘action research cycle’.

In the distant future that could perhaps be one of the many ‘responsibilities’ of the CBNRM Learning Institute, in the near future it would be preferable to look for other, complementary options as a source for research support, but with linkages to CBNRM LI activities.

The lessons from the past are one part of the foundation for the future, the other part consists of understanding the many changes that have been and are taking place in Cambodian institutional CBNRM landscape. We turn to the latter next.

## CHANGES IN THE POLICY, LEGAL AND INSTITUTIONAL ENVIRONMENT FOR CBNRM

Many of the changes in relevant policies and legislation related to CBNRM happened in the past 5 years or even more recently, and much of it is still under development.

The earlier section related to project outcomes considered how various projects informally influenced emerging policies. In this section we'll demonstrate that many policies have now been enunciated or drafted and that the arrangements for these processes have undergone considerable evolution. There are also many more actors involved in policy development, implementation and adaptation than in the recent past.

For future IDRC projects this may entail different strategies for policy development or influence, and as we'll try to argue, it may imply more attention to 'implementation of the stated policies'.

First the state of policy and legislation related to natural resources will be reviewed, followed by an overview of coordinated attempts to implement these policies and development, through 'national programs'. Then we'll discuss the prospects for support and collaboration with some relevant research and development programs and organizations.

### POLICY AND LEGISLATION RELATED TO NATURAL RESOURCES

Policy statements relevant for CBNRM (and rural poverty and environment issues in general) include:

- **National Strategic Development Plan** (2006 – 2010), a process that will transform the **Rectangular Strategy** into a **National Development Plan**. This national plan will be monitored via focusing on progress made in achieving **Cambodia's Millennium Development Goals**. This plan is designed to support Technical Working Groups (TWG) (such as the TWG on Forest and Environment) and to act as an overall aid coordination mechanism.
- **Rectangular Strategy** (2004-2008), a plan that aims to enhance growth, employment, equity and efficiency through the implementation of the socio-economic development plan and the national poverty reduction strategy.
- **Cambodian Millennium Development Goals** (CMDGs) (2003), which includes indicators related to environmental sustainability (MDG Goal 7: Environmental Sustainability). The Cambodian MDGs include indicators related to community fisheries, forest cover, improved access to water supply and access to land tenure.

- **National Poverty Reduction Strategy (NPRS)** (2003). Within Cambodia's NPRS there is some attention given to decentralization of natural resources including reference to local land use planning, community forestry and community fisheries, general environmental protection and farmers' involvement through community water user organizations.
- **Strategic Framework for Decentralization and De-Concentration Reforms (D&D)** (2005), presenting the government's over-all vision and strategy for the reform of sub-national governance and the main steps to be taken in implementing the reform process. Details to still be worked out.
- **Strategy of Land Policy Framework** (2002), including statements on the role of land users as managers, PLUP, and communal titling.
- **National Forestry Policy** (2002), stating a commitment to broad management principles, with little mention of CBNRM issues. Though it does refer to involvement of local communities, protection of traditional rights and increased benefits for local communities.
- **National Water Resources Policy** (2004), a document with some mention of the need for improved participation of beneficiaries and farmer user organizations (see Oberndorf 2005 for more details).

For fisheries there is an unofficial briefing note with the ambitious title of **Fisheries Sector Policy and Action Plan Briefing** (n.d.), presenting the vision and strategic framework for Cambodia's fisheries. Its objectives include ensuring the sustainability of the harvest of living aquatic resources, democratic and participatory resource governance, sufficient supplies to meet demand, private sector development and safeguarding critical habitats.

For many of these policy statements it has been observed that "clear statements of action to be taken that can be effectively measured and monitored over time" (Oberndorf, 2005: 39) are lacking. To get these statements of intent translated into action on the ground, quite a few additional steps are required. Such steps include:

- a. a national law providing the legal principles and responsibilities for the area of concern, (or in special cases a royal decree)
- b. a sub-decree providing more legal details on specific aspects to the overall area of concern,
- c. a *praka* or administrative guideline, providing instructions on how the law and sub-decree are to be administered,
- d. guidelines providing more detailed instructions on planning and administration processes and procedures,
- e. a program with time-bound objectives, activities and budgets.

In comparison to a decade ago (when IDRC began its CBNRM work) there have been considerable developments across all NRM sectors. Table 6 presents an overview of rules and regulations by main natural resources. Though Table 6 demonstrates considerable 'gaps', it also shows that in terms of 'policy and legislation' much is in place already. Not all of that is conducive to CBNRM, but enough to provide 'policy and legal space' for strengthening communities' role in natural resource management.

**Table 6: Overview of legislation and policy related to CBNRM** (*drafted policy in italics*)

	DECENTRALIZATION	LAND	FOREST	PA	FISH	WATER
POLICY	D&D Reforms Strategic Framework	Land Policy Part. Land Use Plan'g (PLUP)	Forest Policy 1993		Law on Env Prot & NRM 1998 (?)	
LAW	Law on Admin Communes 2001 <i>Organic Law (2006-2007)</i>	Land Law 2001	Forestry Law 2002	<i>PA Law (submitted to Council of Ministers)</i>	<i>Fisheries Law (1999 draft, at national assembly in 2005)</i>	<i>Water Management Law</i>
ROYAL DECREE				Royal Decree 1993	Com. Fisheries (May 2005)	
SUB-DECREE	Many	Social / Economic Land Concession etc	Com. Forestry 2003	<i>Drafting PA Sub-decree</i>	Com. Fishery June 2005	??
PRAKAS	Many	Few, more in pipeline	Submit to MAFF		Submit to MAFF	??
GUIDELINES	Many e.g. NREM Mainstream	As above	<i>Drafting</i>	<i>Draft (in English for comments)</i>	<i>Drafting</i>	??
TWG FOCAL DONOR	DFID	GTZ	Danida	Danida	DFID	AusAid
PROGR	Seila >> D&D program	LMAP 1 & 2; LASED	Forestry Action Plan/ NCFP	PA Action Plan/ CPAD	Fisheries Action Plan/ CFDO	??

The issue now may be much more to shape how that space will actually be used, and how local conditions and processes can be shaped that do benefit communities. That also raises questions as to how such processes can be applied at larger scales, and how capacity can be developed to design, plan, implement, monitor and evaluate the national programs, both by communities and by the different levels of the administration.

In that process of 'program design and implementation' different organizational (professional) cultures will emerge as well. In some cases there is a strong centralized

planning tradition, such as within the Forest Administration; in other cases there is a strongly decentralized planning emphasis, such as within the Ministry of Interior. In many natural resource administrations, there is a strong tradition of ‘eating the state’, as in commercial forestry and fisheries. This may contribute to considerable resistance to hand over ‘profitable’ resources for the benefit of communities.

There are also contradictions between different legal instruments. For example, within the *Law on Management and Administration of Communes*, a broad clause allows commune councils to manage and protect natural resources (articles 41 and 43). According to the *Community Forestry Sub-decree*, however, community forestry can only take place with approval from the Forest Administration. Considering that these policies were created in 2001 and 2003 respectively -- with significant donor funds -- the lack of harmonisation is particularly problematic and hints at the territorial tensions found between different Ministries. Other legislation is pending: it is unclear how additional legal instruments will fit in with existing policies on resource management (Marschke 2005).

While the above laws and strategic papers have, to some extent, set the stage for CBNRM initiatives, implementation remains a challenge. For instance, there have so far been neither communal land titles issued nor any related sub-decrees/guidelines on how to implement or enforce the *Land Law*. With regard to community forestry, this sub-decree falls short in guiding the process, thus detailed guidelines are still needed. This also holds true for the *Community Fisheries Sub-decree*. Thus, while ‘rights’ are one part of securing rural livelihoods, far more support is needed to ensure that rural people’s claims can be enforced (or for that matter, that rural people are aware of their ‘rights’ and are willing to take the risk to ensure that their rights are secured).

Of particular potential significance to IDRC’s future planning, the mission considers the various initiatives in terms of ‘national programs’ that are being undertaken by a range of development partners (particularly donor agencies), usually coordinated by relevant government agencies. These programs comprise a range of activities, including experiments/pilot activities/‘action research’ to test or develop guidelines, or mainstream, scale up and/or scale out activities, or even ‘implement’ guidelines. It is also important to point out that such ‘programs’ are at different stages of articulation, and/or implementation.

In many cases these programs are now being designed, monitored and supported by Technical Working Groups.

## TECHNICAL WORKING GROUPS

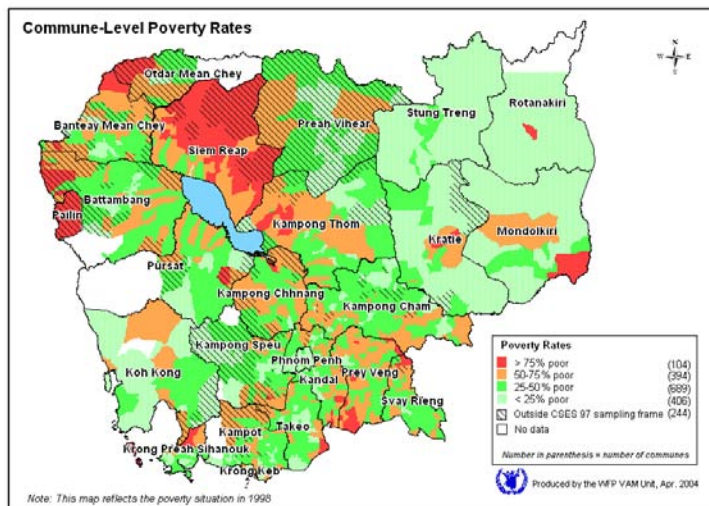
Presently there are 18 technical working groups covering a range of ‘sectors’. Technical Working Groups (TWGs) are designed as (a) a technical mechanism for government-donor coordination in the various sectors and (b) to ensure sectoral linkages with the RGCs Rectangular Strategy (2004 – 2008). Recently established (depending upon the

sector, in late 2004 or in 2005), the TWGs aim to identify sector wide priorities, harmonize activities, improve the utilization and mobilization of resources and support efforts to strengthen a sectors' capacity to contribute to economic growth while including the poor (TWG-Forestry & Environment 2004). Perhaps more importantly from the perspective of IDRC CBNRM work, the TWGs were designed to provide a link between high-level policy dialogue and field implementation/project work, translating high-level policy goals into sector-related programs and projects, using such 'field experiences' to ensure that policy goals are realistic. The working groups are coordinated by the lead line agency for the sector concerned, with major donors in the sector acting as focal point.

Five TWGs are directly relevant for CBNRM development:

- Decentralization, with DFID (and SIDA?) as donor focal points,
- Forestry and Environment, Danida as donor focal point,
- Fisheries (DFID)
- Land (GTZ)
- Agriculture (water) (AusAid)

Other working groups of some relevance to CBNRM, include Gender (JICA), Legal and Judicial Reform (WB), Public Administration Reform (UNDP), Public Financial Management (IMF/ADB), Private Sector Development and Trade Reform (WB/ADB), Partnership Working Group (Japan/UNDP), and Food Security and Nutrition (WFP).



**Figure 1: Commune level poverty rates, an example of materials produced in other sectors** produced by the Food Security Information System) in site selection for CBNRM or other RPE-type projects.

Activities from the latter category would only need to be monitored, in case relevant issues come up in CBNRM programming. The earlier discussed case of the two track strategy in salary supplements is an example of such monitoring, in this case from the 'partnership working group'. Another example could be the use of materials produced by other sectors (such

as Figure 1, the map related to commune level poverty

There could be considerable advantages in establishing closer relations with the aforementioned five technical working groups.

#### AS AN EXAMPLE, THE TWG – FORESTRY AND ENVIRONMENT

The activities from the TWG – Forestry and Environment may illustrate some of the possible linkages with IDRC supported work on CBNRM (or Rural Poverty and Environment).

The Joint Technical Working Group on Forestry and Environment (TWG-F&E) was established in late 2004 to provide a mechanism for government-donor dialogues in coordinating development activities within the forestry and environment sectors. The overall objective of this group is “to support and strengthen forestry and environmental development so as to contribute to economic growth, food security, increased employment and poverty reduction” (TWG\_F&E 2004: 1). More details can be found on its newly created website, [www.twgfe.org](http://www.twgfe.org).

The TWG-F&E has created two Action Plans (2004 – 2008): (1) Protected Areas Action Plan and (2) Forestry Action Plan. There is also an overall work plan for 2005. Here, as an example, one finds objectives specifically related to community forestry (Objective 3.1) and to marketing forest products (Objective 5.1). The Quarterly Progress Report for June 2005 – August 2005, however, illustrates some of the challenges that this TWG faces in meeting its objectives. These challenges point at the gap between the stated policies and the actual preferences and performance of the organizations charged with implementing them.

In terms of strategic engagement in national policy dialogues, the newly established TWGs are one arena that IDRC projects could -- and most likely should -- ‘exploit’ more actively both for identification of critical research questions, comments on project ideas and proposals, and for sharing findings and recommendations from research activities.

The same approach applies for the national programs, supported by key donors involved in supporting these working groups.

#### NATURAL RESOURCE RELATED PROGRAMS

In terms of ‘administrative reform’, the program with the greatest potential for ‘impact’ on community based natural resource management are reforms relating to deconcentration and decentralization.

Observers comment that, “Cambodia takes a unique approach to decentralization” (Oberndorf 2004: 11). Usually, three aspects of decentralization are addressed: political decentralization (devolution of authority), administrative decentralization (or deconcentration), and fiscal / market decentralization (privatization of government services). In Cambodia, the focus of decentralization is on the devolution of executive and legislative authority to the democratically elected commune councils. On the other hand, deconcentration in Cambodia is focused on the delegation of administrative functions and decision making to the province and districts.

The disconnect between these two processes (political and administrative decentralization) is thought to be a reflection of the lack of a clear policy on decentralization. The ‘organic law’ that is expected to come in force in 2007 needs to address the relationships between these various levels and lines of government.

It is against this background that the role of commune councils in land use planning, and natural resources and environmental management must be understood. In most cases this role is presently limited to a facilitation role, with actual decision making remaining with the line agencies that have the jurisdictional competence within specific areas (Oberndorf 2005: 38-39). Moreover, as Table 7 illustrates, the feasibility and likelihood of commune council functions, as currently legislated, actually working in support of natural resource management is limited (or at the very least, requires further thought and analysis).

**Table 7: Commune council functions related to resource management**

Legislated Function	Feasibility	Likelihood
“Protection & conservation of the environment, natural resources & national cultural heritage”.	<b>Low feasibility:</b> formal control unlikely to be delegated to commune councils in the short to med term; limited capacity.	<b>Low to medium likelihood:</b> Power & control unlikely to be delegated over most of these functions.
“Promotion & facilitation of the development of the C/S by invoking assistance & mobilising capacities”.	<b>Medium feasibility:</b> if defined in terms of raising voluntary community contributions or encouraging self-help initiatives.	<b>Med likelihood:</b> self-help & voluntary contributions are part of commune life; this development can be fostered with appropriate leadership.
“Promotion of social and economic development and upgrading the living standards of the citizens”	<b>Medium feasibility:</b> in narrowly defined areas for representation of community needs; dev’t planning may help.	<b>High likelihood:</b> representational functions in specific areas would not threaten distribution of power and control.

Adapted from: Blunt 2003

Table 7 suggests that it will take time before specific articles are feasible or are likely to be implemented, partly because most legislated functions of the commune council are general and ambitious (Blunt 2003). For example, the commune council’s mandate related to natural resource management is the “protection & conservation of the environment, natural resources & national cultural heritage”. Although this mandate suggests that the commune council could be involved in resource planning or management and land allocations, it is highly unlikely that centralized state agencies such as the Department of Fisheries would be willing to hand over much power or control to



the local level. On the other hand, a function such as the “promotion of social and economic development and upgrading the living standards of the citizens” may, in fact, be used to support the work of the commune council in a range of livelihood enhancement projects (agro-forestry, small-scale aquaculture, tree planting). At this point, however, there is not the technical or financial support for commune councils to even begin tackling their mandated functions regardless of whether or not these functions are feasible. This point may be worth keeping in mind, given that major donors such as Danida and DFID are placing major emphasis on commune level involvement in NRM (as will be discussed).

As already noted, the IDRC supported work in Ratanakiri has contributed in major ways to the ‘mainstreaming of the NREM process’ through the Seila program<sup>11</sup> (Sovanna 2005). The mission also notes that the organizational structure of the other three supported IDRC initiatives (CFRP, CFDO and PMCR) with its mix of national line agency and provincial line agency personnel, could in principle contribute much to ‘piloting’ the missing deconcentration arrangements. That is, helping government departments at provincial and district levels work out their explicit roles related to CBNRM would be rather helpful and necessary (this is done informally in most cases, with the exception of Ratanakiri which was the project’s specific mandate in later years). This aspect may need to be considered more deliberately in planning of future activities in which national and provincial line agency staff is involved.

Another issue to be kept in mind is that an exclusive focus on local government may neither be conducive to the functioning of these governments (by overburdening them with tasks) nor contribute much to the welfare of local people dependent on natural resources.

That is presumably why one of the components of the CCB-NREM program refers to the support of the development of civil society, including NRM related organizations at different levels and for different purposes. The role of civil society is somewhat debated in the Cambodian context. While some actors push for greater civil society involvement, others caution that civil society is at best weak in Cambodia given Cambodia’s recent history and cultural context (see Blunt and Turner 2005).

#### DANIDA-DFID NATURAL RESOURCE MANAGEMENT AND LIVELIHOODS PROGRAM

This is the biggest NREM programme in terms of scope and finance (10-12 provinces with a budget of more than \$62 million over five years). The three main components of the program are support to Natural Resource Management under the National Decentralization and De-concentration Program, support to Land Management (linked to the National Land Management Program) and support to Civil Society and Pro Poor Market Development. The latter component will be operated through independent

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<sup>11</sup> In the words of the last PAG mission to Ratanakiri: “*It is clear that the work on natural resource issues over a number of years in Ratanakiri has inspired the Seila NREM strategy and contributed to the design of the NREM project*” (from the PAG mission report of November 2003).

funding (with CBNRM LI as one of the recipients of this funding) and it is envisaged that eventually such funding will take place through an independent foundation. The program is expected to become operational by mid 2006.

The Natural Resource Management program will build on the current CCB-NREM (Commune and Community Based Natural Resource and Environmental Management) program, with activities currently being implemented in six provinces and being set to expand to include five more provinces in 2006.

CCB-NREM activities include mainstreaming environmental and livelihood issues into commune plans, and small-scale support to communes that receive certification (granted in relation to environmental planning) (see Marschke 2004 for an explanation of what the commune level planning process for environmental issues entails). Communes may choose to use these certification funds for projects related to environmental education, tree replanting, patrolling activities etc. In addition to certification funds, there are additional funds that several 'pilot' communes in each province may access to trial different environmentally-focused projects (related to CBNRM and/or livelihood enhancement activities).

Though future activities will include both forestry and fisheries activities, no support is foreseen for the line agencies concerned, other than support to the Technical Working Groups. The Danida-DFID appraisal mission of November, 2005 comments that there are significant constraints within these line agencies, many of which are related to 'structures, systems and incentives within line agencies' (Danida-Dfid 2005) and recommends to use existing capacity assessments to address these issues.

Presently the land management component of the CCB-NREM project uses PLUP (more accurately, a modified version of PLUP involving basic mapping and GIS) as its key activity. Field activities (i.e. a PLUP map sketched and consolidated at commune level) have been going more or less smoothly. The key question has been answered is that there are no procedures and mechanism in place to get the map approved. The effort has been to get the Ministry of Interior (MoI) to work with the Ministry of Land Management, Urban Planning and Construction (MLMUPC) to address this issue.

The Danida-DFID appraisal mission also recommends a review of PLUP experiences and comparison with other approaches (agro ecosystem analysis, poverty-livelihood assessments, poverty targeting to vulnerable households), particularly related to the impact of such processes on poverty.

Future land management activities will focus more on the legal aspects of land use planning and management, including mechanisms for dispute resolution.

Coordinated support to the NRM and Livelihoods program is provided through the Danida-Dfid 'joint donor facility'.

In addition to this 'integrated' NRM program, there are other 'multi-stakeholder' program initiatives in community forestry, fisheries, land and agriculture (water)

#### NATIONAL COMMUNITY FORESTRY PROGRAMME

With support from NGOs and donors (mainly from Community Forestry International (CFI)), the Community Forestry Office (CFO) of the Forest Administration has drafted a strategic paper called the National Community Forestry Programme (NCFP). CFO intends to use this paper to mobilize resources/supports to undertake CF activities. The paper provides an overview of the legal environment for CF, and of the activities of 16 development organizations and projects, active in community forestry development. It also reports the findings of needs assessments carried out in 4 regions ('inspectors').

This forms the basis for identification of activities in a first phase, planned for 2006-2008, focusing on:

- Formal Recognition of (200) Existing CF Sites
- Development of –local/provincial- CF Support Teams
- Develop and Support CF Networks (at provincial and national level)
- Information Management (database development on CF)
- Formation of Forestry Extension Team to produce extension and training materials
- CF Research Team and identification of research themes and mechanisms for monitoring and evaluation
- National Community Forestry Working Group comprising key actors to guide and support the development of the NCFP strategy

If approved, agreed and implemented the process could provide a good framework for collaboration in community forestry development. Both CBNRM LI and CFRP are involved in the consultation process, and this would point at future opportunities to link IDRC supported initiatives in community forestry development more clearly with those of other actors, particularly with the Forest Administration.

The consultation was originally planned for early December 2005, then postponed until later in December and the latest news is that the main supporter of the initiative (CFI) has decided not to accept the support from the World Bank that was to be used for the NCFP.

Reportedly the Forest Administration is now looking for another co-sponsor. Developments in this initiative may need to be actively monitored through the IDRC partners involved in it.

#### PROTECTED AREA ACTION PLAN/COMMUNITY PROTECTED AREA DEVELOPMENT (CPAD)

The Protected Area Action Plan of the TWG F&E emphasizes CBNRM and capacity building to support CBNRM in protected areas. In accordance with this action plan, the CPAD Office has drafted guidelines to implement the (still-draft) law on natural

protected areas. The draft guidelines are based on experiences with initial CBNRM activities initiated by (national and international NGOs) with 70 communities in a wide range of conditions. The guidelines are now being translated into English for wider consultations.

The Community Protected Areas Development office is developing a program together with development partners to apply, test and adapt the guidelines. This is also foreseen in the Protected Area Action Plan 2004-2008, in which two of the five outputs refer entirely to CBNRM and development of relevant support capacity. In two of the other outputs CBNRM is an important component.

## FISHERIES

The “vision and strategic framework for Cambodia’s fisheries’ earlier referred to, envisages “a future in which Cambodia and its people are able to enjoy sustainable social and economic benefits from the exploitation and farming of living aquatic resources” (DoF, n.d.). Community fisheries is the main strategy in this ‘action plan briefing’.

Observers point at the urgency of implementation of this strategy, in view of the de facto open access situation created by the decision to allocate over 500 000 hectares of fishing lots for public access. In addition to building the organizational capacities of communities, there is an urgent need to “improve governance by establishing appropriate legal authorities and rights, strengthening the accountability of public officials, and removing barriers to the economic viability of community management” (Ratner 2005).

Key players in the TWG Fisheries and in development on the ground include ADB, FAO, UNDP, JICA, and Danida. While the first four are targeting 5-6 provinces around Tonle Sap, Danida has been active in the coastal zone areas (with some collaboration of field activities taking place with PMCR in Koh Kong province). DFID has supported fisheries work throughout Cambodia (coastal, Tonle Sap etc). Since 2002, ADB has been formulating a number of grant projects that include the pipeline and an \$18 million grant for WATSAN activities around Tonle Sap (with the Ministry of Rural Development as the executing agency). In addition, there is a \$15 million grant project called Tonle Sap Sustainable Livelihoods Project to be executed by the Department of Local Administration (DoLA/MoI) and a number of agriculture/fish projects under MAFF, in collaboration with FAO, UNDP and Danida.

In brief, these large projects mainly focus on investment for rural development focusing on poverty reduction through the improvement of infrastructure, health and other social services.

These projects are not focused on research or action research as such whereas CBNRM-interested NGOs are typically working as specific issues advocates, by-passing government institutes and having no direct strategic link to influence policy.

Further exploration into the work of the World Fish Center is necessary. According to their website ([www.worldfishcenter.org](http://www.worldfishcenter.org)), project goals for the Greater Mekong Region (Lao PDR, Vietnam and Cambodia) include: (a) to improve the health and nutritional status of poor families, especially women and children, by increasing people's access to fish for food; (b) to reduce poverty by supporting sustainable livelihood strategies related to fishing, fish-farming, processing, marketing, and related uses of aquatic resource; and (c) to protect and restore the aquatic ecosystems that underpin rural livelihoods by addressing the threats to ecosystem sustainability from across the landscape. A main objective of their work is focusing on fisheries governance, and there may be some potential for connection with RPE in this regard.

## LAND

In addition to Danida CCB-NREM Land Management component (discussed earlier), the Land Management and Administration Project (LMAP) \$24 million World Bank IDA loan to MLMUPC has been the major source of funding for this Ministry. This LMAP project combines GTZ technical assistance with an ADB loan for aerial mapping, Sida money for land titling, and Oxfam GB for related studies aiming to improve land tenure security, and promote the development of efficient land markets. Project components include: (a) support the formulation of land policies for land administration, management, and distribution by developing the capacity of the Secretariat of the Council of Land Policy, (b) in policy analysis and development, and (c) formulating key policies in the areas of management, administration, and distribution based on studies and pilot projects. With this project and GTZ technical assistance, the Faculty of Land Management at RUA has been established although the financial flow from the LMAP Project as well as political support from MAFF for this Faculty at RUA has been problematic. Studies on landlessness have mainly been done by Oxfam: given that Oxfam GB is now moving toward forestry there will likely be a research gap here.

In any case, progress in addressing land issues will be considered as a major precondition for Cambodia's development by many donors, especially the World Bank. The Land Allocation for Social and Economical Development project under World Bank support will focus on social and economic land concessions.

## AGRICULTURE AND WATER

The TWG Agriculture and Water is in a more initial stage of development than the TWGs discussed earlier. The TWG has apparently had some problems in developing an agricultural strategy. But this requires a cross-ministry approach for which mechanisms are not in place yet. The TWG therefore has decided to focus on the National Strategic Development Plan.

One of the activities of the TWG is the 'promotion of sustainable management and development of irrigation activities'. A study was planned for October 2005. Another activity refers to improving the linkages between extension and irrigation.

FAO, the World Bank, ADB, and AusAid play major roles in this sector. CIDA has also become interested lately, but focusing more at the sub-national level (province) and looking to focus in the north-west. ADB and AusAid have been supporting some activities on research (mainly for rice) and extension while NGOs such as the *Centre d'Etude et de Developement Agricole Cambodgien* has been more active in agricultural action research (mainly for lowland crops and livestock).

For irrigation development (including formation and strengthening of water users' groups and associations), the Ministry of Water Resource and Meteorology has been receiving grants and loans from ADB, China and JICA. There is anecdotal evidence that there are interesting lessons that could be learned from the development of these water users' groups and associations for other CBNRM activities.

### **TWGS AND NATIONAL PROGRAMS: IMPLICATIONS FOR IDRC SUPPORTED INITIATIVES**

The IDRC supported community-based management pilots have been quite successful in the institutionalization of community based approaches. In Koh Kong, informal arrangements (including field visits) were used to brief high level officials from the Ministry of Environment (but also from MAFF) on issues and approaches in community based management. Much of the experience in Ratanakiri with land use planning has been institutionalized through the movement of project staff into decision making positions in national programs such as PLG.

The possible implications of the emergence of more formal sector wide policy coordination mechanisms such as the Technical Working Groups and the emergence of 'national programs', under the leadership of sector agencies should be more seriously explored in the design of future IDRC supported initiatives.

The mission suggests that the following aspects are considered:

- a. the identification of 'gaps' not addressed by national programs. An example of such a gap could be the capacity of line agencies to support local (provincial, district, commune, community) level actors, and activities.
- b. the identification of critical policy research questions. In all technical working groups, issues are raised for which insufficient understanding and information exists.
- c. the consultation of the TWG (or core representatives thereof) in the identification of new projects and the project idea and proposal,
- d. sharing of intermediate and final findings and results from the project.

Discussion with the Learning Institute on this issue is also advised so as to explore their role in keeping projects informed about developments in TWGs, and possibilities and modalities for sharing of experiences.

## **OTHER RESEARCH & DEVELOPMENT INITIATIVES IN THE NRM SECTOR**

Here we highlight some research and development organizations and some other initiatives that the mission considers of particular relevance for future IDRC programming in Cambodia.

### **CAMBODIA DEVELOPMENT RESOURCE INSTITUTE**

“The Cambodia Development Resource Institute was established in July 1990 as an independent Cambodian institute working to support capacity development within selected government and civil society institutions. In all its activities, the Cambodia Development Resource Institute acts from a basic respect for local capacity, emphasising the importance of building on existing experience, working in partnership with local institutions in planning and implementing activities to ensure that they respond to real needs. CDRI's research and analysis of socio-economic and development issues form the core of training programmes, workshops, conferences and policy discussions” (<http://www.cdri.org.kh/>)

As the quote from CDRI's website may illustrate, this organization's mandate seems to overlap quite a bit with IDRC. This may also have been recognized by EEPSEA and led to the hosting of the EEPSEA coordinator at CDRI. The four categories of CDRI's research program further illustrate considerable overlap with the RPE program:

- a) Agriculture, Rural Development and Poverty
- b) Economics and Trade
- c) Governance and Decentralization
- d) Natural Resources and Environment

The research projects on natural resources include the baseline research on natural resources and community forestry and fisheries referred to earlier. Other interesting examples include the research on trading forest products, particularly resin (Tola & McKenney 2003) and on fish buying and selling in the Tonle Sap.

An example of collaborative research with a development project is the exploratory research on high value forests by CDRI with the Wildlife Conservation Society (McKenney et al. 2004). Particularly their recommendations on 'piloting "commercial" community forestry for villages near high value forest (HVF) areas' now forms the basis for a more action research oriented project in Mondulhiri.

Danida and DFID were reportedly planning a review of CDRI (and particularly its Natural Resources and Environment Program) to be held in October 2005.

This could form a good basis for further exploration of collaboration with and possibly support of CDRI. But the following case may also illustrate some of the risks in such collaboration that need to be recognized and managed.

### **IDRC PARTNERS' EXPERIENCE IN COLLABORATIVE RESEARCH**

The IMM et al. 2005 livelihood diversification study provides an interesting example of the type of collaborative research that project partners may find themselves engaged in, especially given the approach (generally) partners take of learning in the field and of using participatory processes, whenever possible.

In the case of the IMM et al. 2005 study, collaboration between IMM and CBNRM LI, CFDO and PMCR took place to conduct field research on livelihood diversification in five coastal villages. Two of these villages were PMCRs field sites. Keeping in mind that all project staff had experience with PRA research, training in facilitation skills and case study writing and, in the case of some PMCR and CBNRM LI staff, sustainable livelihood approaches it is curious that the report states that there was “limited past experience of the group in research of this type” (IMM et al. 2005: 10) and a “relative lack of experience among field researchers” (IMM et al. 2005: 17).

Yet, significant training materials related to sustainable livelihoods have been produced through IDRC Cambodia projects over the years. This work includes a detailed CD-Rom that provides a theoretical synthesis of sustainable livelihood concepts and illustrates how this is related to CBNRM approaches in Ratanakri (produced in the late 1990s), a series of participatory sustainable livelihood analysis workshop reports (PMCR; CBNRM LI) and training methodology (re-worked several times with project partners in various field sites). Various projects reports from PMCR (and those written by Danida CZM) discuss coastal livelihood issues; a series of case studies have been produced by CBNRM LI. In the area of sustainable livelihood approaches and livelihood diversification, a Master’s thesis (R. Kinnaken) and a Ph.D. thesis (M. Marschke) were produced. None of this material is referenced or built upon in this study!

It is ‘strategic’ for other donors to support such collaboration with CBNRM LI or others, given the research capacity that has been built surrounding CBNRM. Nonetheless, there is a risk that such research collaboration becomes donor driven with not enough time for considering and building upon existing research skills and existing documentation.

We use this example to draw attention to research partnerships and the challenge in finding the balance of achieving widely read outputs with spending time on action research. Typically, IDRC projects have been better at the latter and research results are often lost or not shared particularly well. In the case of CBNRM LI, it made sense to collaborate and, to a certain extent, have IMM focus the research given the time it takes to coordinate and analyze research reports. What is lost in this transaction, however, is local ownership and synthesis of results. Most of these findings are already found in other project documents, however, they are now nicely packaged and thereby more accessible to donors and others interested in the issue. It should be acknowledged that this took a lot of partners’ field time (taking that away from other project activities), and where such a process may have been most valuable (in strengthening analytical skills) it failed. This type of collaboration, driven by outside researchers, is something CBNRM LI and other IDRC teams will have to balance carefully.



## OXFAM AMERICA

Oxfam America is in the last year of a two and a half year strategic plan ending in 2006. The heaviest commitment of this grant making institution is CBNRM, with a specific focus on water issues within the Mekong River Basin. In Cambodia the key hubs are the Tonle Sap and Mekong River Delta. Oxfam America takes a trans-boundary perspective, looking at the Mekong River Basin as a whole and at resource access issues (not just from an administrative perspective).

Oxfam America supports networks such as the Sae San network in northeastern Cambodia (a community networks supported by NGOs such as CEPA and NTFP) and a counterpart community network in Stung Treng (working on livelihood issues affecting communities living along the river). In the Tonle Sap, Oxfam America is working with Fisheries Action Coalition Team (FACT) and Oxfam GB. They also support the internship program at RUPP, Department of Sciences. Specific work on forestry issues has been handed over to Oxfam Great Britain.

## THE WORLD BANK AND CONCESSIONS

In a memo to the FA related to forest concession management (Nov 24 2005), Mark Wilson of the World Bank writes, *“our assessment is that concessionaire performance is unlikely to improve and concessionaires are unlikely to meet their contractual and legal obligations”*. This memo further urges the government to “immediately plan for responsible and sustainable management of the respective forest areas following termination”. The memo goes on to suggest that the FA build on the Independent Sector Forest Review and encourage the TWG on Forests and Environment to develop an action plan with benchmarks related to forestry management. The memo specifically encourages a mix of forestry management approaches including: (a) community forestry; (b) partnership forestry; (c) public private partnerships (combining aspects of community and partnership forestry); and (d) realignment of conservation priorities (the World Bank has worked with MoE to adjust the distribution of conservation areas i.e. improve protection of high conservation value forests; potentially release lower conservation value areas for more productive uses).

In terms of ‘strategic directions’ that the World Bank is focusing on, documents suggest that (2005b: ii), “both the legal framework and the technical management systems for natural resources will have to be strengthened in the short run”. Priority areas that the World Bank will focus on supporting, in addition to enhancing the legal framework around NRM includes:

- a) Improving land tenure security;
- b) Implementing marine and freshwater management systems of fishing communities while ensuring sustainability of stocks;
- c) Implementing a combination of forest management systems that permit community use, wider economic growth, biodiversity protection and conservation with an emphasis on enforcement mechanisms based on transparency;

- d) Piloting area based water management systems.

#### INDEPENDENT FOREST SECTOR REVIEW – PARTNERSHIP FORESTRY

The Independent Forestry Sector Review advocates for forestry the adoption of a partnership approach. The quote below demonstrates what is envisaged, including yet another set of tasks for the commune councils!

“Partnership Forestry is different to community forestry, which assigns rights to community groups, but it is not an alternative to community forestry. With the Commune Forest Plan, there would be a range of implementation approaches including community forestry, private sector contracting or self-working.

Our recommendation is that the proposal for Partnership Forestry should be given serious consideration as it addresses many of the problems identified in the analysis of current systems. We also recognise many constraints: e.g. communes do not have autonomy as yet, there is high risk of elite and party capture, and there are no financial mechanisms in place such as bank accounts” (IFSR 2004: 16).

While it remains to be seen whether partnership forestry could be realistically implemented at this point in time (no action plan has been adopted to that effect), it could very well be further explored in more research-oriented activities. Partnership forestry could be one way in which communes can generate revenue from their resources, something that is not currently happening. For partnership forestry to work, it would involve a considerable ‘give and take’ between the FA and Commune Councils. To date, the FA tends to retain central control on most forestry issues. Nonetheless, in spite of these challenges, the Danida/DFID project plans to pilot this process at the commune level as part of their NREM pilot work.

It is also important to acknowledge the underlying shift in analytical approach implied in ‘expanding’ the scale from community to commune level. The work in Koh Kong on bay wide fisheries management, the shifting of access to forest in Chumkiri and the landscape approach pursued in the MOSAIC initiative point at the need to more systematically explore and develop ‘multi-scalar’ approaches in community based natural resource management. There are common methodological and analytical issues in pursuing such approaches in trying to link physical features with institutional arrangements at different levels and different boundaries. Collaboration between projects focusing on different resources in different situations could be beneficial to enhance learning and practical application of such approaches.

#### UNIVERSITIES

*Royal University of Agriculture*

Faculty and students from the Royal University of Agriculture have been involved in various IDRC supported initiatives, including student thesis work in most of the projects, research support in Ratanakiri, and as project partner in CFRP.

In Ratanakiri, an attempt was made to form a steering group for farming systems research comprising lecturers from different faculties. From the perspective of the expected outcomes the results were not very encouraging. In particular, the assessment of socio-economic and cultural aspects proved to be a challenge<sup>12</sup>. But there were also some encouraging outcomes, such as changes in understanding of the nature of swidden agriculture.

Leading the Ratanakiri team to conclude (and recommend) that:

“It may be possible to improve university professors’ attitudes, interests and motivation to do field research and learn about upland livelihoods and traditional NRM given the right incentives. It is recommended that existing research institutions have special grants for participatory action research on indigenous and marginalized groups.” (Sok, 2005)

Another mode of involvement is the partnership of the Faculty of Forestry in CFRP that has clearly demonstrated to enhanced capacity of lecturers involved, as indicated by the hiring of such lecturers by other projects. It is, however less clear to what extent this has contributed to changes in education and in the development of a community forestry research strategy in the faculty.

In general there have been and continue to be many development projects. Presently these include a project to develop and offer an MSc in “Integrated Rural Development” (supported by the French government) as well as support to various faculties (Forestry, Land Management, Agronomy) by DED.

The mission supports the conclusions and recommendations of the Ratanakiri team, but emphasizes that in the design of special support activities for RUA the experiences from past and present development cooperation are taken into account.

#### *Royal University of Phnom Penh (RUPP)*

RUPP’s Department of Environmental Science was established in 2000. Its interdisciplinary BSc curriculum focuses on Natural Resource Management, Environmental Pollution Control, and Fundamentals of Environment. AIT (in cooperation with the regional Danida supported University Support to Environmental and Management Project) supports the development and implementation of the curriculum.

The department is interested to initiate research and/or development work, including work in CBNRM. One of its faculty is particularly interested in this topic. The head of

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<sup>12</sup> which gets back to our earlier point that the Ratanakiri team has an understanding of cultural nuances and perhaps more time needs to be given to think about how to do greater ‘sensitizing’ to outside researchers working in different ethnic groups on NRM issues.

the department expressed strong interest in future cooperation with IDRC in CBNRM and possibly other environmental research themes.

Experiences from IDRC project partners (CBNRM LI and Koh Kong) indicate that students from RUPP during internships or after graduation are highly motivated and of considerable professional quality and potential.

Various observers shared their impression that the institutional environment in RUPP may be more conducive to innovative approaches to NRM&E, than in the more established faculties of the Royal University of Agriculture, under MAFF management.

A more grounded and detailed assessment of this impression is required. Assessing the comparative advantages and disadvantages of supporting either, or both universities separately would also need to include possibilities for support to a collaborative program. There are already some forms of collaboration between staff of both universities and the merits and demerits of such collaboration need to be investigated.

## CONCLUSIONS

Our main conclusions from the review of ‘new developments’ for consideration in future programming are:

- a. to establish and maintain explicit linkages with relevant TWGs and national programs in the design of projects/activities, implementation and sharing of findings and experiences,
- b. to actively explore establishing working relationships with the Cambodia Development Resource Institute,
- c. to investigate needs and modalities to support the development of research capacity in the Royal University of Phnom Penh and/or the Royal University of Agriculture,

## **OPTIONS AND RECOMMENDATIONS FOR THE FUTURE**

The mission has considered three options for IDRC's future involvement in CBNRM (or Poverty and the Environment) in Cambodia: (a) withdrawal or exit; (b) an entirely new direction or a 'fresh start'; (c) or building on lessons from IDRC initiatives over the past decade.

### **EXIT/WITHDRAWAL**

In view of the many changes discussed earlier, IDRC's withdrawal could be justified. The outcomes envisaged and the approaches advocated have been or are being institutionalized. Many of the changes in policy and legislation that IDRC has advocated are incorporated in the new policy documents and in new rules and regulations. The pioneering work in Koh Kong and in Ratanakiri is 'institutionalized' in a national NRM and Livelihoods program. The community fisheries work is addressed in a large number of well funded projects. For community forestry, a national community forestry program is emerging.

There is a Ministry of Environment that is (in many ways) functioning, where there was none earlier. There is a platform (learning and sharing institute) for CBNRM organizations, with a growing capacity to initiate, support and draw lessons from projects, and generate support from other sources.

And there are many young (and older/more senior) professionals in government agencies with greater commitment, understanding and capacity for the development of CBNRM.

All in all, there have been many sustainable outcomes achieved with a limited number of resources over a short period of time.

The mission believes that exit or withdrawal from Cambodia is a realistic option for IDRC, if the sustainability of outcomes is the only criterion.

However, we believe that the main justification for IDRC's continuing involvement in Cambodia is that there is increasing competition for and degradation of natural resources, growing landlessness and unemployment, which is expressed in high – albeit reportedly declining - levels of poverty. With the emergence of a more community friendly regulatory and institutional framework, there are new opportunities to address these issues.

The human and social capital developed with IDRC support now has a very good chance of contributing in important ways in getting the rules and regulations implemented in a manner that may actually benefit the rural poor. And here the killer assumption is that sufficient political will can be generated to support such implementation!

## **FRESH START**

The mission has not seriously considered this option, largely because of the mission's understanding of the strategic framework of IDRC's Program Initiative for Rural Poverty and Environment. This may also have been reinforced by the design of the review exercise, particularly considering how projects were actively involved in the review component of this exercise (see Appendix A, the ToR). Also the findings and the conclusions from the mission about the effectiveness of the projects, as well as the time pressure, did not allow us to seriously explore entirely new approaches, partners and arrangements.

## **LESSONS FROM THE PAST, IMPLICATIONS FOR THE FUTURE**

Building on lessons from the past does not imply 'doing more or less the same as what we have done before'.

As discussed under lessons, we advise considerable changes in approach in CBNRM, and feel that considerable change in arrangements may also be required. This is particularly felt in terms of providing field research support and mentoring, in inter-project sharing and communication, and in the relations with the technical working groups and emerging programs.

We also see the need for more concerted efforts to explore building research capacity in two universities.

Perhaps on a more conservative side, we advise to build on capacity already developed, and continue working with young professionals from relevant government agencies, both in the development of knowledge and approaches as well as building lower level capacity.

## **BUILDING ON SUCCESSES**

The mission suggests that IDRC build upon the successes found within these projects, including:

- ❑ Maintaining a focus on the emerging community based natural resource management program, and to build the future development--research agenda on the livelihood/poverty-governance/policy-resource rights/property rights framework as suggested by both the RPE PI and the CBNRM agenda for the future in Cambodia (RPE 2005; CBNRM LI 2005).
- ❑ Maintain the model of working with teams of young professionals in relevant government agencies, at both national and lower levels, development NGOs and research organizations (universities) in the NRM sector.

- ❑ The action research (or participatory learning and action) approach used by most projects provides a good basis for further development of approaches that go beyond resource protection and rehabilitation.
- ❑ The arrangements for deployment of ‘mentors’ or ‘coaches’ particularly assisting in the identification and formulation of research questions, and ways to find an answer to these questions (concepts and methods), need to be strengthened,
- ❑ Analysis of, and reflection, documentation and sharing of lessons, facilitated by the CBNRM Learning Institute is another element that provides a good basis for further development. Also the continuing active involvement of the Learning Institute in identifying new activities and projects is recommended.

## BUILDING ON LESSONS

### a. Asking the Right Questions

The projects need a clearer and preferably shared framework to guide them in posing the ‘right’ questions. Various processes and approaches have been suggested and used (‘PRA’, ‘action research’) along with some experimentation with frameworks (‘sustainable livelihood framework’). The mission suggests exploring frameworks that are easy to follow<sup>13</sup> with a clearer focus on the natural resource and its linkages with management, governance and livelihoods. The example attached in Appendix E should not be copied exactly as is but illustrates the type of framework that could assist teams to stay on track in their action research.

Projects also need clearer guidelines for monitoring and evaluating their own progress: the example attached in Appendix F illustrates the nature of such a framework. This framework could be adapted by projects to their own situation at the beginning of the project to assist in monitoring progress and evaluating results, and as the basis for the formulation of a mutually understood and agreed ‘exit’ strategy.

### b. Developing ‘exit’ strategies.

Although it is beyond this review team to come up with a comprehensive framework for exit strategies, this is an area that we believe requires far more thought.

Perhaps we were most struck in the case of Ratanakiri and to a certain extent with CFRP that the work of these projects is not yet finished. While there may be issues and projects may need to be re-jigged, project partners appeared not adequately prepared for the

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<sup>13</sup> Although some would argue that the sustainable livelihoods framework provides an excellent entry point into CBNRM research, its very holism is the reason that practitioners find it difficult to follow (for further discussions on the pros and cons of this framework in relation to CBNRM in Cambodia, see Marschke 2005). Any framework that is suggested needs to work ‘on the ground’ and be meaningful to its users.

project to end. It seemed that there was almost a sense of ‘shock’ that things were really winding down.

Our sense is that projects are stopping without key lessons being reflected upon or shared. Furthermore, mechanisms are not in place to continue critical action research such as communal land titling in Ratanakiri or PLUP for IPs. Similarly, within CFRP the project appears to have made considerable progress in Phase 2, yet the team did not feel that most communities (with the exception of Chum Kiri) could fully function without continued support.

For such reasons, we think the following considerations may be helpful in thinking through an exit strategy<sup>14</sup>:

During project formulation:

- During project formulation, develop realistic goals; the framework in Appendix F may assist in considering possible goals for both ‘process’ and ‘outcomes’, (each present project appears to have a particularly expansive set of goals, more realistic goals may need to be formulated),
- Develop criteria and indicators for the various ‘process’ and ‘outcome’ areas that can be monitored throughout the project (indicators that are specific enough to enable ‘measurement’),
- Build in explicit strategies to ensure that projects can end / become sustainable when a goal is reached.

Throughout the project:

- Thinking of ‘mission accomplished’ ahead of time
  - Build in exit strategies to all projects, especially those in Phase 2 or 3 of funding. In this sense, PMCRs approach of finding funding for different project components may be worth taking a closer look at
- Adequate monitoring and evaluation (by an outside, ‘constructively critical’ source would be most helpful), which should include project termination if certain critical elements are lost
- Be open to devolution (this is not as easy as it would appear in Khmer culture)
- Linkages to other organizations that would continue to take on the roles that IDRC began (mentoring, risk taking, informal capacity building, revenue expansion planning)
- Take time to ensure that ‘major’ lessons are drawn out and shared with appropriate audiences (not only at the end of a project)

For IDRC to keep in mind:

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<sup>14</sup> The Monitoring and Evaluation team at IDRC has far more experience with this kind of thinking than we do, and would be worth connecting too.



- Provide clear feedback to partners as to the likelihood of continuing funding, based on monitoring results,
- Be aware that uncertainty about future funding may lead to the best project staff looking for other livelihood opportunities.

### c. Defining Development Research

The predominant mode of ‘doing development research’ in the present projects is ‘do development’ and then ‘reflect and share how the outcomes were produced’, with lessons feeding into guidelines for PLUP, NREM, community forestry, communities in protected areas, etc.

There often appears to be some division of labour of provincial/local teams ‘doing the development’ (guided by national project teams) and the national teams doing the ‘research’ (certainly in terms of writing and sharing the results or lessons from the field). The problems in Ratanakiri in trying to combine program implementation and research in the same project, may illustrate the risks involved. It is proposed to consider exploiting this division of labour so as to improve both the ‘development process’ and the ‘research process’. One possible strategy is for projects (and IDRC) to focus on ‘research’ by national teams and establish working relationships with on the ground activities or projects managed by others (see also below on the idea of linking with national programs).

Another challenge for future ‘development research’ is to more systematically explore different modes or types of research beyond action research in a limited number of sites. The need for more thematic research (or ‘topical’ research or RRA) was identified, during interviews with partners. More or better analysis of conflicts related to natural resources, and exploration of different modes of ‘resource dispute resolution’ is one example. Other examples include small enterprises and marketing, and community based ecotourism.

As Neilson (2001) points out “different research approaches, frameworks, methodologies, etc., imply different sets of questions, producing different kinds of answers, for different kinds of purposes”. In *academic research* the focus is on systems of explanation; in *planning research* on understanding the factors that produce the outcomes we are seeing. In *instrumentation research* the focus is on construction of the factors to produce the desired outcomes, and in *action research* we try to find out whether we can actually produce the outcomes we desire.

To further develop the CBNRM agenda, a more deliberate choice and mix of these various types of research is required. As elaborated below in more detail, this may require a shift from providing research support on a project-by-project basis towards a more programmatic approach in providing research advice, support and capacity building.

As the five CBNRM projects illustrate, there are many benefits to supporting individual projects. However, considering that an unacknowledged CBNRM program has emerged as a result of this body of research, it may be worth pondering how a program might enhance the strategic angle of research projects. This may enhance project ability to:

- (a) formulate strategic research questions, while avoiding duplication, or engaging in joint research on specific issues
- (b) work within individual sectors or field areas, while contributing to the broader CBNRM landscape
- (c) find a balance between action research and knowing when to produce or engage with 'strategic' outputs.

#### d. Supporting the Research Teams

Presently such support is provided on a project by project basis, with mixes of different modes: technical advisors, MSc or PhD students, the CBNRM Learning Institute, program officers, regional networks (who may provide training on specific activities or concepts, upon request), long term and short term consultants.

Also in view of the need identified in the previous section, we advocate a shift from 'project' to 'program' mode of operation, and suggest that some 'centralization' should be considered, particularly for research support. The mission strongly recommends to IDRC to consider hiring a research advisor with a common property research and development background, to assist and to some extent mentor the research teams in improving the relevance and rigor of their research activities in the field. Part of her/his ToR would be to introduce, adapt and train teams in the adoption of the type of research frameworks and monitoring frameworks we alluded to in Appendix E and F earlier. Another role for the research advisor would be to assist teams in the analysis of their findings at various stages and identify follow on work. Yet another part would be to keep abreast with NRM and livelihoods research and development work carried out by others in and outside Cambodia and to share these lessons with the project teams. See Appendix G for examples of such research that should be explored for drawing lessons for the IDRC supported initiatives.

It appears that presently some of this work (particularly the final packaging and documentation) is taken up by the Learning Institute. This indicates that the research advisor needs to collaborate and coordinate his/her activities with the Learning Institute. Posting the advisor at LI is therefore one option to be considered. The mission senses that posting at a research institute (such as with the natural resource section of CDRI) could be more advantageous, not only to maintain linkages with their work, but also to enable CBNRM LI to develop its own capacity and program. .

#### EXPLOITING NEW OPPORTUNITIES

*Linking the research projects to TWGs and emerging national programs*

There are various initiatives to implement the new sets of rules and regulations through ‘national programs’.

Such programs have been initiated in decentralization and deconcentration (though as discussed earlier, the latter aspect is problematic), NREM mainstreaming and community forestry. For communities in protected areas, guidelines are reportedly in an advanced stage of articulation, and in community fisheries there may be scope to develop a more programmatic framework in anticipation of the *prakas* that is being drafted to implement the *Community Fisheries Sub-decree* and to explore how to feed into the National Fisheries Action Plan, 2005 – 2008. Table 8 illustrates how potential research projects could be linked with existing or emerging national programs.

**Table 8: Linking Research Projects to ‘National Programs’**

Resource	Program	Research Leader	Partner	Research Focus	Remarks
1. D&D	D&D nat. program	MoI	NRM & Livelihoods program,	Landscape approach	Possibly as part of resource focused projects (re. Ratanakiri and Koh Kong’s work with local government as examples
2. Forest	National Com Forest Programme.	FA, CFO	LI (M&E)	CB forest management	Move beyond protection of degraded resources
3. PAs	Com PA Dev’t (guidelines)	MoE, CPADO	LI	CBNRM	Link with PMCR, Koh Kong
4. Fish	Com Fisheries (prakas)	DoF, CFDO	LI (program dev/cap. building)	CB Fisheries management	Livelihood focus/ local org. development
5. Land	TWG Land Manag’t MoI/ MLMUC	MoI / MLMUPC		Communal land titling process for IPs	Select additional community livelihood / D&D follow up
6. Agric/ Water	Water users’ associations	??	LI	Learn from water user groups	Exploratory, some experience in Koh Kong

Table 8 demonstrates that a series of research teams working on CBNRM issues could focus on various resources, but as much as possible use shared research frameworks and approaches. The resources where CBNRM-related research could be further explored include: (2) forests, (3) PA resources, (4) fish, (5) land, (6) agriculture and water. In all cases the role of local government (commune councils, provinces and districts) could be explored, in addition to the development of local NRM governance and management institutions.

In the following we offer some suggestions as to how programming for each of the main action research sectors could proceed, for consideration, discussion and adaptation by IDRC and partners in Cambodia.

a. Forested areas

Key partner: Interest from the Forest Administration/Community Forestry Office (including members involved in CFRP) and from other relevant divisions in the Forest Administration is to be explored for the development of a project idea for action research in community forestry/ partnership forestry.

Process: CBNRM LI to be requested to facilitate (or host an outside facilitator for) the formation of a project preparation group and the preparation of a project idea. The group will consider the *Independent Forest Sector Review* report, the *Community Forestry Sub-decree* and other relevant legislation, the TWG forestry action plan, the draft National Community Forestry Action Plan, and relevant experiences from CBNRM projects in the identification of objectives and design of strategies and partnership arrangements.

The project idea will be presented to the TWG forestry and environment (coordinated by the Forest Administration) and IDRC for their comments and suggestions. Based on these comments, a decision will be taken on whether to proceed in the preparation of a project proposal, explore other ways of research support (see below) or focus on other sectors/resources for the near future.

b. Protected Areas

Key partner: The MoE/CPAD team (including CFRP members) exploring scaling up of initial CBNRM activities in PAs with 70 communities with a wide range of partners (national and international NGOs). This could possibly be complemented with key staff from PMCR and/or RUPP's Department of Environmental Science.

Process: CBNRM LI is already in discussion with CPAD about this initiative. As in forestry, the need for an external facilitator (to be managed by CBNRM LI) may need to be explored. In the preparation for this theme, the linkage with the draft Protected Areas Action Plan is already pretty obvious, and the main challenge here could be to identify the relationships between the PA management plans and community based initiatives.

As above, the project idea would be presented to the TWG forestry and environment and to IDRC for their comments and suggestions, with decision on how to proceed depending on nature of comments.

c. Fish

Key partner: In addition to CFDO, interest from other Department of Fisheries staff may need to be explored.

Process: Based on CBNRM LI's support in capacity building with CFDO in the past, this organization emerges again as the most logical one to facilitate (or manage the facilitation) of exploration of needs and modalities for an IDRC project.

The first challenge for this group would be to analyze the reasons for the noted shortcomings in earlier support to CFDO. The need to anchor such project more clearly at the level of the Department of Fisheries and particularly the Technical Working Group for Fisheries needs to be explored. Programming in this case would require more efforts, and also needs to assess the role of and support to provincial level community forestry development units.

#### d. Land

The land issues are too big to handle (for IDRC) and too important to ignore, as most observers agree that many of the issues related to natural resources discussed earlier (and even more of the agricultural issues) are related to land policy and its implementation. If IDRC were to remain or become more involved in this fundamental issue, it would most likely have to identify a topic in which it feels it has some comparative advantage. The work initiated in Ratanakiri on communal land titling, and the linkages established by the team with relevant national authorities (both in MoI and MLMUPC) could be taken as an example of such comparative advantage.

As there are different candidates who could be key partner (at national level), selection of this partner would have to be part of the project identification process.

Process: As above, also here CBNRM LI could be asked to facilitate (or manage the facilitation) of the project preparation process, together with selected team members from the Ratanakiri project, as well as their main contacts in MoI and MLMUPC. As in the other sectors, a project idea would be submitted to the TWG for Lands and decisions for project proposal take comments from that working group and IDRC into account.

In the preparation process, the team should be aware of the threats to maintaining a clear focus on communal land titling include the temptation to explore support to community forest management and utilization (if the experiment in high value forest in Mondulkiri increases its acceptability with the national and provincial FA), and the strong linkages with the provincial government (and the DFID/Danida intentions in NREM in Ratanakiri). If the MoI/MULPC/Ratanakiri Community Titling project were to be further explored, careful programming will be required so as to identify opportunities in community forestry and provincial governance that are closely related to the communal land titling process and do not divert the project's attention too much.

#### e. Water and NRM on-farm

No IDRC projects are proposed for these 'sectors', but are mentioned here as potential sources of useful lessons. The Farmers' Field Schools in IPM (see also RECOFTC material on Forest Management Schools) and the water user groups and associations in

irrigation are just examples of the type of innovations that the CBNRM practitioners need to consider, particularly if they move beyond protection of the resources. Livestock and grazing are other examples of sources that could possibly be explored. The CBNRM Learning Institute indicated that they were aware of this potential and are considering ways of tapping this more effectively in the future. The proposed research advisor could also play a role in this, particularly in adapting relevant research and development approaches proven effective in the water and agricultural sector.

The mission does not advocate special projects on D&D, in view of the emerging national program and the Danida-DFID NRM and Livelihoods program. Both decentralization and de-concentration would need to be addressed in all initiatives as major thematic concerns.

#### *The role of the CBNRM Learning Institute*

The CBNRM Learning Institute is already involved in all four other projects, in different degrees and ways. It must, however, be recognized that their proposed facilitation in project development of 3-4 new initiatives, would be an additional burden, requiring additional resources, particularly human-power resources.

The other issue that needs to be considered is that their role in supporting project implementation (reflection and sharing of lessons, documentation, and capacity building), has already become considerable, and it may be expected that their involvement in project design will also lead to an increase in support to project implementation.

The institute has already identified common issues requiring common approaches with possibilities for greater collaboration in the design and testing of these approaches, in terms of resource governance, resource rights and livelihoods.

To a considerable extent access to concepts and methods for addressing these issues are presently ‘brokered’ by the institute through contacts with international universities, organizations and networks.

This is a tall agenda for any institute to deal with, but is particularly challenging in a situation in which the institute’s capacity and program need to be developed as well.

This is one of the reasons the mission proposes to explore collaboration with the Cambodia Development Resource Institute to provide additional support in design, mentoring and capacity building of action research activities. This would include, in collaboration with the Learning Institute, the identification of common issues and themes across projects/resources/sectors.

#### *The role of the research support coordinator at CDRI*

It is proposed to discuss with CDRI their interest in hosting an IDRC supported action research coordinator/capacity builder specifically for the IDRC supported initiatives.

Housing this coordinator in the NRM section could be of interest to both parties, if CDRI were interested in developing capacity building services in action research in CBNRM. For IDRC and its initiatives, the linkages with the NRM policy research and other relevant research initiatives and linkages could be of interest, both as a source of information and possibly (if resources were available) to initiate this other type of research as a spin off and support to action research activities.

Linkages with international research activities, initiatives, and ‘bodies of knowledge’ have been already mentioned as another possible set of tasks for the action research coordinator.

### *Building research capacity in universities*

In both the Royal University of Agriculture (RUA) as in the Royal University of Phnom Penh (RUPP) the needs for and interest in development of capacity in CBNRM research and education are well recognized, also by staff from these institutions.

Staff (from RUA) and students from both universities have been involved in IDRC supported initiatives. In the case of RUA, this has contributed to better recognition of the various institutional constraints to success in efforts to build such capacity. Discussions with others involved in development efforts at RUA reinforced the mission’s impression that any effort to develop CBNRM capacity in the university needs to be based on a better understanding of the nature of these constraints and the identification of possible ways and entry points to deal with them. This mission has not been able to achieve that level of understanding.

In the case of RUPP, the involvement has been limited to internships and graduates from RUPP working with some initiatives, such as the Learning Institute. Feedback from the projects was very positive about the capacity and potential of these students and graduates.

We recommend fielding a special mission to further explore issues and strategies with both universities, preferably by people involved in building university capacity in CBNRM in similar conditions (such as the National University of Laos, another IDRC CBNRM supported project).

Questions to be further explored by this university focused mission include:

- a. analysis of lessons from involvement of university staff in past IDRC efforts (particularly Ratanakiri and CFRP) and lessons from other development efforts (DED, French MSc support project at RUA, AIT/USEPAM, etc.),
- b. the pros and cons of linking university support to the other IDRC initiatives, including the needs and opportunities for involvement in field based research by selected university staff in IDRC supported initiatives or independently addressing ‘thematic issues’ arising from the work of other projects,

- c. the relative emphasis on building research capacity, programs, and/or other domains such as educational programs,
- d. the need for and nature of linkages between university development initiatives, CBNRM LI and CDRI.

## CONCLUSIONS

For future programming the mission concludes that building on demonstrated strengths and lessons from the past decade is a promising take off point for programming. The main changes suggested by the lessons from the past are the need to better align ownership of project and program in community forestry, assess the need and 'niche' of IDRC in community fisheries in view of the large number of projects, and to improve the research support and arrangements for future field based initiatives. Additional lessons refer to the need to build on and further develop the emerging 'cross sectoral' or thematic CBNRM development research program, and the continuing support to the main facilitator of this program - the CBNRM Learning Institute.

Considering the changes in policy and institutional environment, the mission recommends more effective engagement with the new technical working groups, better and more explicit linkages with national programs where possible, and exploring complementary (to the Learning Institute's efforts) arrangements for research support through CDRI.

Building of research capacity at universities needs to be more explored in a more systematic manner than this mission has been able to do.



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## APPENDIX A: TERMS OF REFERENCE

### *Background.*

IDRC (CB-)NRM programming in Cambodia has a somewhat special history. Cambodia is rare in that for some time a specific country program with a branch office in Phnom Penh existed.<sup>15</sup> This suggests that IDRC at the time felt a need for a local presence, for a good understanding of the Cambodian context and for a strategic engagement with the country as such. While this may be partly explained by IDRC ideas about regional and country programmes at the time, it is also no doubt related to the extraordinary historical situation of Cambodia during the early and mid-1990s. During this period, Cambodia began to rebuild its institutions, legal framework, intellectual infrastructure, etc. which required massive external assistance, but also provided opportunities for helping shape development directions.

In spite of the expectation that a country program would lead to a broad engagement of IDRC Programme Initiatives, ENRM projects formed the majority of projects from the early years onwards.<sup>16</sup> Later also, after the closure of the branch office, Cambodian projects occupied a relatively large share of the CBNRM PI budget, a fact that led to considerable debate within the team. In April 2005, there were five CBNRM/RPE project active in the country:

- Community-based management of inland fisheries,
- Coastal resource management (Koh Kong),
- Community Forestry Research Project,
- Ratanakiri mainstreaming of NRM ,
- Cambodia CBNRM Learning Institute.

This relatively large presence continues to embody a strategic engagement in Cambodia, with opportunities to achieve objectives at the national level (e.g. policy change, shaping evolving institutions, building crucial capacity) that are absent in other contexts.

The NRM programming situation in Cambodia has changed considerably over the past years. First, while not completed, a legal and policy framework has evolved. National-level legislation regarding land and other natural resources as well as processes of decentralisation have been put in place. These are increasingly complemented by more specific sets of regulations, like the sub-decrees on community-based forestry and fisheries, associated implementation guidelines, etc. The formulation and implementation processes of these laws and policies have formed an important focus of the work of IDRC partners. They have both organised their research questions and fieldwork around these processes and attempted (with varying degrees of success) to provide inputs to their formulation.

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<sup>15</sup> See *Transitional Countries Study, Cambodia Case*, hereafter “TCS”.

<sup>16</sup> TCS, p. 6: “the majority of projects [...] could be described thematically as traditional ENRM programming.” P. 7: “heavily-sustainable development slanted focus.”

Second, Cambodian research and administrative capacity has grown rapidly. Initially, the “inadequate research environment and lack of human resources” led to a much larger role of foreign, long-term, senior technical advisors in IDRC projects than is usually the case.<sup>17</sup> Now, the projects are “carried” by Cambodians, with a much more modest (and diminishing) role for expatriate advisors. IDRC projects have played an important role in helping build such capacity. However, in spite of clear advances, research capacity in Cambodia is still relatively weak. Both the EEPSEA and PAN programmes have been struggling with this over the years.<sup>18</sup> It also seems that the relatively small expat presence in IDRC projects is still the exception to the rule in most projects.

Third, an institutional landscape with more or less mature organisational roles has taken shape. With IDRC support, the Ministry of the Environment has become firmly established. Within ministries, offices concerning community fisheries, forestry and protected areas have been set up. Some of this process, however, is still ongoing. The Forestry Administration, which followed from the Department of Forestry within the Ministry of Agriculture, Fisheries and Forestry, is still establishing a presence in the field at lower administrative levels. This process, together with the parallel development of a regulatory framework, constitutes an ongoing struggle for control over forest resources among different government departments and between the FA and local actors, including communities.

This changed institutional landscape now also includes a wide variety of NGOs, both international and domestic organisations, of all plumage and colour. IDRC-supported projects commonly collaborate with these NGOs, both in Phnom Penh around workshops or other specific events, and in the field where local NGOs are often long-term partners in implementation. One new arrival on the scene is the Cambodia CBNRM Learning Institute, which evolved directly out of IDRC-supported work<sup>19</sup> (see below).

Cambodia remains heavily dependent on foreign donor assistance, for development investment as well as for covering a substantial part of the government apparatus’ operating costs. While the relationship between the Royal Government of Cambodia and the donors is a complex and sensitive one, and the Cambodian leadership ultimately makes its own decisions, some of the larger donors have considerable influence over policy directions (e.g. the World Bank and forest concession policy). The Seila/PLG programme (with which the Ratanakiri project is affiliated) continues to be an important element in Cambodia’s decentralisation and governance reform, with work around NRM moving out of pilot provinces to cover large parts of the country. At the same time, some of the larger donors are searching for different assistance modalities and arrangements. DANIDA and DfID, for example, have recently launched a multi-donor NRM and

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<sup>17</sup> See *TCS*, pp. 7-8.

<sup>18</sup> EEPSEA is now trying to strengthen its engagement in Cambodia by stationing its deputy director at CRDI in Phnom Penh, while PAN is embarking on a “whole-country strategy” in Cambodia to complement its regional network-based approach.

<sup>19</sup> The CBNRM Learning Initiative, out of which the Learning Institute grew, was hosted by WWF, an international NGO.

Livelihoods Programme, with an associated “facility” through which their assistance will be channelled.

IDRC programming has also changed over the years. Some of these changes have already been referred to, like the diminished role of long-term senior expatriate advisors in response to the increase Cambodian capacity. One important recent change is the active IDRC involvement in the setting up of the CBNRM Learning Institute (LI). The LI grew gradually out of the CBNRM Case Studies project, which aimed at bridging and networking among different groups active in CBNRM (-like) work through the introduction of the case study methodology. This process also helped build a stronger conceptual grasp of CBNRM issues. The project made active use of small grants to a variety of institutions and individuals and basically worked in collaboration with other actors. The success of the project seemed to point to the existence of a gap or niche and the participants decided to establish a permanent independent institution to fill this niche structurally. The LI currently assists the CFDO, CFRP and Ratanakiri projects with training and documentation-related activities. Important donors, in particular DfID and DANIDA also showed strong interest, although this still needs to result in larger substantial funding.

Within IDRC, there is a consensus that the LI potentially could play a key role in future centre programming in Cambodia, but it is far from clear what that role would be. Some have suggested that the LI might actually evolve to become the main channel for IDRC support to various projects or that the LI’s activities over time might replace some of the current field-based projects.<sup>20</sup> Others think that that would be going to far, but that collaboration with and/or technical support to other projects combined with an enhanced role for small grants dispersed by the LI could be a possibility. Of course, while the LI has good working relationships with IDRC supported projects and often plays a coordinating role, it is an independent institution and its future would be primarily determined by its board and staff. At the same time, it is clear and that the LI is carving out a key strategic role for itself in CBNRM in Cambodia and is likely that it will be closely involved in future IDRC work in the country.

Of the currently active CBNRM projects in Cambodia, three (Ratanakiri, Community Forestry, and Community Inland Fisheries) will reach their planned date of completion within one year. The other two projects have received new funding relatively recently. While each of the projects has had considerable success in achieving its objectives, in all cases there is still much work to be done before outcomes are sustainable and capacity is sufficient. With the transition from the CBNRM to the RPE Program Initiative, the allocation of budgets for continued support of these projects has become less sure. Furthermore, the projects also face important but difficult choices in terms of their strategic institutional arrangements. For the CFRP, the relationship with the FA – which is consolidating its role at the national level and extending its tentacles into the provinces – is increasingly difficult. CFRP’s home location within the Ministry of the Environment brings certain strengths with it, but with the FA having the ultimate say in matters

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<sup>20</sup> Some of the other donors’ interest in the LI also at least in part seems to be as a conduit for channelling small grant funding to recipients.

pertaining to forests, there are drawbacks too.<sup>21</sup> Some have suggested that it might be better to locate the project within the FA, while others argue that working with the FA as such is problematic. In Ratanakiri, there are similar questions about the continued effectiveness of working at the provincial level through the Seila/PLG structures. CFDO has recently had serious problems keeping qualified staff and have (partly at IDRC suggestion) turned to the LI for inputs when preparing a proposal for a new phase.

In sum, IDRC will have to make a number of funding decisions within 12 to 18 months. At the project level, funding availability will need to be examined (and a case built for continued support where necessary). Some of the problems of the individual projects may not be addressed in a simple way and need to be scrutinised. The projects also need to be examined as part of the overall IDRC body of work in Cambodia and within the evolving national context. This is a critical juncture with opportunities for fresh ideas, out of the box thinking, and new directions or for reconfirmation of established approaches or a combination of these.

In order to meet these challenges and identify the opportunities, it is proposed that IDRC (RPE/ASRO) undertake a strategic review of the current CBNRM work in Cambodia and its context.

### *Objectives*

The immediate objective of the review would be to provide IDRC (in particular the RPE Program Initiative) with a basis for deciding on near- and medium term programming in Cambodia.

It would do so by reflecting on a number of questions:

- What have we learned from the past IDRC projects: what worked well, what did not work well, why? The main focus here is on project approaches and strategies, for example on institutional affiliations, partnership strategies, organisational models, project organisation, policy advocacy, field engagement, staffing, etc.
- What are the outcomes of the projects, in particular in promoting the adoption of CBNRM approaches in government and other organisations? This needs to be looked at at the project level as well as at the aggregate level.
- To what extent have the projects embodied an adaptive learning approach and what has been learned in this respect?
- What is the current state of CBNRM-related capacity in Cambodia? The emphasis here is on research capacity, but understanding and capabilities in relevant government agencies, projects, and NGOs would also be examined.
- What does the institutional and regulatory landscape for CBNRM look like and how different is it now? Where are key decisions taken and/or implemented? Who are the people one might want to influence? Who are possible direct and indirect partners?

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<sup>21</sup> Cf. *TCS*, p. 7, where Andrew McNaughton is quoted as speaking of “the strategic mistake of situating program focus inside the Ministry of the Environment as opposed to the Ministry of Agriculture, Fisheries and Forestry, where control over natural resources resided.”



Which donors are interested in funding supplementary activities or in coordinating projects?

- If change at the national level is strived for (strategic engagement), eg in terms of policy change, shaping institutions, or building capacity, how can we define the objectives and related indicators?
- How can IDRC and research partners develop exit strategies? How to define realistic goals and associated indicators for projects to attain? How to build in capacity building, institutional development, donor networking and other strategies that would enable projects to continue without IDRC support?

### *Methodology*

The broad approach would be a combination of review of documents, interviews and consultative/ participatory elements. IDRC will make relevant project-related documents available to the consultants. Respondents would include, but not be limited to, staff of current and past IDRC-supported projects, personnel of government agencies, NGOs, donor agencies, and academics.

The participation of current IDRC project partners is important and will be facilitated along the following lines.

- 1) During an initial half-day meeting with project staff, the key questions and the team's approach to answering these will be discussed. This approach may be adapted in the light of the discussion.
- 2) This is followed up by interviews with individual project staff (and people not directly involved in the projects).
- 3) Towards the end of the "fieldwork", the team will present and discuss with the partners the preliminary findings, conclusions and recommendations and possible explicit adoption of partner comments.
- 4) The final report will refer to partners' ideas where relevant and provide reasoned arguments for adoption or rejection.

In this process, care will be taken to avoid positive or negative expectations with regard to future IDRC support and in general group discussions should focus on experiences, learning and major strategic questions, not about project specifics.

No fieldwork (village visits, etc.) is anticipated.

### *Outputs and audiences*

The review team is expected to deliver:

1. A report to RPE aimed at stimulating and facilitating a discussion which leads to the articulation of an approach to programming in Cambodia.
2. A report to a broader interested audience, possibly to be translated into Khmer.

### *Timeframe*

The three team members will devote up to 30 days to the review, spread over three months. Before the start of the review, the consultants will present IDRC with a more detailed schedule, which shows the time spent on the different aspects of the work (desk

study, travel, time in Cambodia, report writing, etc.). The final report will be delivered before 31 December 2005 if the fieldwork takes place before the Water Festival or before 31 January 2006 if the fieldwork takes place in December 2005 (TBD before the start of the review).

**APPENDIX B: WHO THE 'REVIEW MISSION' MET WITH**

DATE/TIME	INSTITUTION / PROJECT	PERSON
Not in Cambodia Discussions		
Sept 29 <sup>th</sup>	IDRC Senior Program Officer	Brian Davy
	Former Senior Program Officer	John Graham
	Recoftc	Noelle O'Brien
	Consultants	Tonie Nooyens and Hanneke Meijers
Oct 14 <sup>th</sup>	Former Team Leader, FAO Siem Reap	Patrick Evans
Oct 20 <sup>th</sup>	Former head CFDO, Ph.D. student	Thay Somony
Oct 26 <sup>th</sup>	Dalhousie University	Gary Newkirk
Oct 26 <sup>th</sup>	IDRC Senior Program Officer	Hein Mallee
Oct 27 <sup>th</sup>	Conservation International	Sarah Milne
Phnom Penh, Cambodia Discussions		
Oct 31 <sup>st</sup> , AM	CBNRM LI	Toby Carson
		Ken Serey Rotha
		Srey Marona
		Sam Oeun Sothyro
	PMCR	Chhin Nit
		Eam Dyna
		Daravy
		Ratana
		Jana Bock, Dalhousie MES student linked with PMCR
	CFRP	Sy Ramony
		Kim Sarin
		Ros Chor
	CBCFM, CDFO	Ly Vuthy
		Cheam Pe A
		Sem Viryak
		Proum Kim Hor
	Ratanakiri, NRMR	Ashish John
		Lun Kim Hy
		Ken Irwin
Oct 31 <sup>st</sup> , PM	CBNRM LI	Toby Carson
		Ken Serey Rotha
		Srey Marona

		Sam Oeun Sothyro
		So Srey Mom
		Ken Sopheap
Nov 1 <sup>st</sup> , AM	PMCR	Kim Nong
		Chhin Nith
		Eam Dyna
		Daravy
		Ratana
		Jana Bock
Nov 1 <sup>st</sup> , PM	Ratanakiri, NRMR	Ashish John
		Lun Kim Hy
		Ken Irwin
Nov 2 <sup>nd</sup> , AM	CFRP	Sy Ramony (MoE)
		Kim Sarin (MoE)
		Ros Chor
		By Seng Leang
		Top Pich
		Ou Chan Socheat
		Meas Sothun Vatanak
Nov 3 <sup>rd</sup> , AM	Seila/PLG NREM Mainstreaming	Nhem Sovanna
		Sous Pinreak
		Ignas Drummer
Nov 3 <sup>rd</sup> , PM	RUA – Faculty of Forestry and Fisheries	Von Monin
		Chouk Borin
Nov 3 <sup>rd</sup> , PM	World Conservation Society (WCS)	Joe Walston
Nov 4 <sup>th</sup> , AM	Ministry of Environment	H.E. Thoeuk Kroeung Vutha
Nov 4 <sup>th</sup> , AM	UNDP, Env. Cluster	Lay Khim
Nov 4 <sup>th</sup> , Noon	Danida Tree Seed Project	Sarah Burgess
Nov 5 <sup>th</sup> , AM	CFDO, CBCFM	Ly Vuthy
		Cheam Pe A
		Proum Kim Hor
Nov 5 <sup>th</sup> , Noon	IDRC consultant	Becky Riveria-Guieb
Nov 5 <sup>th</sup> , PM	Former IDRC consultant	Jeremy Ironside
Nov 7 <sup>th</sup> , AM	Oxfam America	Femy Pinto
Nov 7 <sup>th</sup> , AM	RUPP, Dept. of Environmental Science	Va Dani
Nov 7 <sup>th</sup> , Noon	Community Forestry International	Mark Poffenberger Kate Schmit Hansen Amanda Bradley
Nov 8 <sup>th</sup> , Noon	Former IDRC Programmer	Andrew McNaughton
Nov 8 <sup>th</sup> , PM	CPADO, MoE	Meas Sothun Vatanak
		Kim Sarin
Nov 8 <sup>th</sup> , PM	MLUPC, PLUP	Prak Angkeara

Nov 9 <sup>th</sup> , AM  Initial 'sharing' of review mission findings with IDRC partners	CBNRM LI	Toby Carson
		Srey Marona
		Becky Kinakin
		Ken Serey Rotha
		Sim Bunthoeun
	PMCR	Kim Nong
		Eam Dyna
		Chhin
	CFRP	Sy Ramony
	CFDO, CBCFM	Proum Kim Hor
Nov 9 <sup>th</sup> , PM	DFID	Chris Price
Nov 10 <sup>th</sup> , AM	RUA-GTZ	Dr. Jan Peter Mund,
Nov 11 <sup>th</sup> , AM	FA / Com. Forestry Office	Lao Sethaphal
Nov 11 <sup>th</sup> , PM	EEPSEA	Herminia Francisco
Nov 11 <sup>th</sup> , PM	CDRI	Christian Sloth
Nov 12 <sup>th</sup> , PM	CBNRM LI	Toby Carson
		Total individuals = 60; Cumulative total (over several meetings) = 81

## **APPENDIX C: INITIAL IDRC PROJECT REFLECTIONS**

CFDO, CFRP, CBNRM LI, PLG Ratanakiri, PMCR

October 31<sup>st</sup>, 2005

Facilitators: Cor Veer, Min Muny, Melissa Marschke

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Agenda, Oct 31<sup>st</sup> 2005

- This meeting, why?
- This review, why?
- What needs to be reviewed?
- How and with whom?

Project teams broke into four groups, discussing various themes. Below summarizes the key points from each group.

### **What are successful CBNRM indicators?**

CBNRM in Cambodia is a flexible process, building consensus among stakeholders. CBNRM indicators of success include:

- Community rights are recognized in the laws
- Influencing donor programs i.e. Danida/DFID, Seila
- Communities are able to voice their needs
- Governments consulting communities in the process of policy formulation
- Awareness of CBNRM has increased at the national level, including the government level. Also, there is a community level awareness
- Establish structures in the government to deal with CBNRM issues. For example, CFDO or in NGO sector, such as CBNRM LI.

Challenges remain related to CBNRM including:

- Local committees must follow many procedures. There are many committees i.e. forestry and other sectors.
- Conflicts between communities and private sector interests. Resources generate a lot of interest!
- Free rider phenomena, with the outsider coming in. Community sub-decrees (fisheries and forestry) do not allow people to stop outsiders.
- Pressures on local resource management committees, dealing with corruption. Sometimes committee members are corrupt.
- Approaches to CBNRM differ between NGOs and projects.
- Challenges for applying CBNRM in community is that if people do not have time to work with committee. When you disturb a lot they are not happy and do not work very well.

### **What has been learned through CBNRM initiatives?**

- Communities have learned how to be more involved in community development. How to develop rules and regulations, work together, to protect natural resources. How to do workshops, participate in trainings and other types of things.
- Government members have learned about the needs of the community and to participate with communities. And, conduct joint research
- The project is the middle thing, facilitating both community work and government work. The government and communities are learning to work together to resolve issues.

### **CBNRM landscape, examples of changes that IDRC projects contributed to.**

Capacity building: three levels, project staff, community and partners (government and NGO). Capacity has been upgraded in various forms, from writing to doing research to getting new ideas of what CBNRM means. But, also has negative implications as there is a mushrooming of CBNRM and not everyone understands what this means. Different people use different approaches and ways of implementation. Although capacity has been upgraded we do not have a standard agreement as to what CBNRM is in general.

Institutions have been strengthened. There is CFDO, the Community Forestry Development office in FA etc. Also, a series of community-based organizations dealing with CBNRM issues in Cambodia. Institutions remain young, and area learning how to walk. So, it will take time to gather lessons. People learn differently. Even within the NGO community there are different ways of learning. So, this can be confusing. In terms of field practices, the changes is that people see CBNRM as an approach to achieving sustainable NRM, although how to go about it is still a big question mark. Nothing has been standardized, not like there is a record that can tell you when you are there.

While there is significant experience with documentation and lessons learned, who do we do this for and how is it used? How can we better share among practitioners and government staff?

Lastly related to CBNRM policy formulation. From the IDRC projects and others we see that there has been significant policy formulation. These policies are not perfect but somehow provide a base to improve upon.

### **Sustainability**

*What do we meant by sustainability in CBNRM?*

*What indicators can be used to measure sustainability?*

Outcomes leading towards sustainability include:

- community participation, well being and capacity building for research and reflexive learning
- government recognizing CBNRM activities

- networking, linking field practices with the provincial and national level

Sustainability includes:

- Natural resources can be used for the long-term. Local people are the experts and the law supports this.
- Communities can manage natural resources by themselves with recognition from government and a supportive legal institutional framework
- Planning, annual and long-term planning. This means that institutions are able to plan, including commune planning where funds can be generated for CBNRM types of activities.
- After planning the project can assess and find out gaps and ways to improve the process. Reflection and assessment of lessons learned and discussion how to improve, adaptive learning
- Ownership understanding by local people and think of long term sustainability
- Sustainability, can share knowledge with / from outsiders and can then contribute the knowledge to relevant institutions. For example, CBNRM facilitation skills. CFDO cooperated with CBNRM LI and after this can do our own training and contribute to other projects.
- Should not only have one NGO, project, government department working alone. Mechanisms for collaboration, coordination, cooperation and networking.

CV: IDRC is not entirely off the mark in giving this set of questions. Makes us realize that these might be useful questions. So, is there anything that we have missed?

Research – capacity to do research. For example, although I may have all the skills necessary to do so, do I have motivation, interest and the resources to do so? If resources are short, which is often the case especially for the government, then research is often not the priority.

Also, now what we are seeing is a very strong decision by donors to bypass the government but if you look at this kind of discussion they have to involve the government. Without involving government then may be successful on the ground. Sometimes I feel that IDRC also also feels it better to work with the community, and that might not be the message you want to send to IDRC?



## APPENDIX D: EXECUTIVE CBNRM SUMMARY

### Executive Summary

**By:** Ken Serey Rotha, Toby Carson, Steph Cox and Erika von Kaschke

*During the last two decades, policy makers, planners and scholars have needed to revisit and reconsider the important role of relevant stakeholders, particularly marginalized groups in local communities, in natural resource management and conservation.*

*One new management approach towards sustainable natural resource management is community based natural resource management (CBNRM). This is an umbrella term used for many initiatives including community forestry, community fisheries, participatory land use planning, community protected area and joint forest management.*

*A National Workshop on CBNRM, which was held in Phnom Penh in November 2002, indicated a strong need to compile the field lessons learned from different projects and organizations. This status report responds directly to that need. It was led by the Community Based Natural Resource Management Learning Initiative (CBNRM LI) with the support of many key partners including the World Wide Fund for Nature (WWF), International Development Research Centre (IDRC), Oxfam America, and the Regional Community Forestry Research Center (RECOFTC). Additional funding support was provided by DFID and FAO.*

*The Development of CBNRM in Cambodia is an outcome of many different group and individual consultations, meetings, workshops and peer review consultations over the last two years with local and international practitioners and academics working in this field. This collaborative effort has led to the development of 20 chapters with over 35 authors (refer to author profiles section for more details) who have shared skills and dedicated their time and energy to this process.*

*This compilation document is divided into five sections and twenty chapters. The first section, **Developing CBNRM in Cambodia**, provides an overview of the **theoretical background and practical situation** for CBNRM in Cambodia.*

*Ken Serey Rotha starts off with chapter one by providing a description of the understanding of **key concepts** of CBNRM and their understanding in Cambodia.*

*This chapter discusses the shift from conventional management approaches of natural resources to a more participatory management approach involving stakeholders, including disadvantaged groups. It debates what conditions are needed if CBNRM is to be promoted as sustainable natural resource management, which meets the goals of biodiversity conservation and securing local livelihoods.*

*Chapter two, by Toby Carson, Hou Kalyan and Srey Marona, summarizes the **context and experiences** of CBNRM in Cambodia. This chapter synthesizes key information highlighted in other chapters of this publication.*

*The second section focuses on recent **policy changes and legal developments** in Cambodia. Robert Oberndorf provides an overview of the **overall policy and legal framework** related to CBNRM in chapter three. This includes laws, sub-decrees and "Prakas". The author also identifies key gaps within the legislative framework in Cambodia.*

*The influence of CBNRM approaches on the government's decentralization programme, the **Seila Programme**, comes under scrutiny by Nhem Sovanna in chapter four. This paper documents recent experiences of mainstreaming natural resource and environmental management (NREM) into the commune level planning processes of the Seila Programme.*

*Thay Somony, Sim Burthoeun and So Sreymom, authors of chapter five, discuss **fisheries policy reforms and the legal framework for community fisheries**. This paper provides the historical context of fisheries management, and notes the important contributions that fisheries provide to household nutrition and the national economy.*

*The third section explores **networking, working groups, and institutional developments**.*

*Chapter six, written by Chean Thayuth and Ou Sopheary with contributions from the Network Organizing Committee, explains the evolution of the **Community Forestry (CF) and Community Protected Areas (CPA) Network**. This network is an important forum for practitioners at all levels to share information and experiences both inside and outside protected areas, through quarterly network meetings and*

newsletters. This chapter provides an overview of the evolution, benefits and problems of the network, and the authors give recommendations for improving the network in the future.

In chapter seven, Thay Somony, Sim Bunthoeun and So Sreymom, with contributions from Ly Vuthy, Ngin Navirak, and other members of the Fisheries Facilitator Working Group, provide an overview of the **development of community fisheries concepts and networking** in Cambodia.

Ken Sopheap, Rasmey Dara, Amanda Bradley and Yin Soriya, members of the Community Based Eco-tourism Network in Cambodia were the authors of chapter eight. This chapter discusses **Community Based Eco-Tourism (CBET)** in the Cambodian context where natural resources are considered tourism assets. The related policy framework is analysed, and experiences and case studies are shared to learn lessons and consider recommendations for future development.

Chapter nine, written by Min Bunnara, Harald Kirsch and Ignas Dümmer, presents the **Participatory Land Use Planning (PLUP)** approach in Cambodia and its relationship with CBNRM.

The development of **Community Protected Areas** in Cambodia is under the spotlight in chapter ten. This paper was written by Meas Sothun Vatanak and Socheat Leakhena with important contributions from Ken Serey Rotha, Stefan Janssens and other members of the Community Protected Areas (CPAD) team of the Ministry of Environment.

The next section delves more deeply into **lessons learned from field experiences** and includes six interesting chapters.

Chapter eleven focusses on lessons learned from **case study research and writing**. In this chapter, the authors (Srey Marona, Hou Kalyan and Rebecca Kinakin) use examples from case studies facilitated by the CBNRM LI to illustrate these key lessons learned.

Chapter twelve by Sy Ramony, Phan Kamnap and Kim Sarin presents an overview of **Participatory Action Research (PAR)** in Community Forestry (CF), based on the

experiences of CF & community based natural resource management (CBNRM) practice in Cambodia.

Chapter thirteen discusses forest resource and land conflicts in Monduliri province, and methods used to resolve these conflicts through the **Management Of Strategic Areas For Integrated Conservation (MOSAIC)** project. This chapter was written by Cheam Mony, Oul Kim Sear and Andy Maxwell, with contributions from the MOSAIC team.

Ashish John, the author of chapter fourteen, summarizes experiments of fusing CBNRM with **Local Planning Processes (LPP)** in Ratanakiri, a pilot initiative under the Seila Programme.

Chapter fifteen was written by Kim Nong, Ouk Ly Khim and Khy An. It reflects on experiences with **community organizing** as a way to work on resource management with Village Management Committees (VMCs). The chapter analyses what activities VMCs are able to carry out at the village level, and the implications of these experiences for CBNRM in Cambodia.

Melissa Marschke uses chapter sixteen to concentrate on the relationship between **planning and action** and provides an overview of two resource management committees, highlighting how community based management can unfold at a local level and why villagers are participating in such activities.

The final section emphasizes **key opportunities and challenges for CBNRM**, and includes three concluding chapters that discuss moving towards good governance, securing land and resource tenure rights, and sustainable livelihoods.

Chapter seventeen, written by Doug Henderson, analyses the role of community forestry in **improving forest governance** in Cambodia. The author argues that forest governance is fundamentally a political process, often involving highly charged and contentious relationships between different stakeholders.

Frank van Acker takes a look at the link between **human rights and environmental management** in Cambodia. In chapter eighteen he explores the concepts and reflections of the human rights-based approach.

*Katrin Seidel provides an insight into issues of **recognizing indigenous land rights** and the role of CBNRM in chapter nineteen. Assessing the potential and actual performance of CBNRM in the process of formalizing indigenous customary law, the author draws attention to the opportunities, and also to the risks of the CBNRM approach.*

*In chapter twenty Rebecca Kinakin introduces the **sustainable livelihoods (SL)** concept, framework, and applications and considers the implications of using the SL approach for CBNRM purposes in Cambodia. The SL framework has been touted as a way to deepen understanding of the challenges to rural livelihood sustainability.*

***The Development of Community Based Natural Resource Management in Cambodia** is the first Cambodian publication in the field of participatory natural resource management where many different experts have worked together to compile their field experiences. The publication has been written in both Khmer and English, covering different sectors ranging from fisheries, forestry and biodiversity (protected areas) to land use planning.*

*This status report serves as important baseline information for CBNRM as it stands in Cambodia towards the end of 2004. Many of the chapters are still descriptive and not yet very analytical. As CBNRM develops in Cambodia and further lessons are learned, it is hoped that this report will be updated to reflect the change in status. We hope that the authors will continue to collaborate together on a follow-up second volume that can provide further analysis on the development of CBNRM in Cambodia. It is highly recommended that a joint effort to update the information should be approached, if information is to reflect the diversity of initiatives and lessons learned, and to be useful to CBNRM practitioners for generations to come.*

## APPENDIX E: A COMMON CBNRM FRAMEWORK<sup>22</sup>

This framework, as is, is resource-oriented and would most likely reinforce the tendency to emphasize resource conservation. It would need to be adapted to ensure adequate attention is paid to livelihood benefits.

### *The problem*

- ❑ What is the problem we are talking about?
- ❑ Which goods (fish, forest, water etc) and services (e.g. ecosystem services) are affected?

### *Incentives: characteristics of the goods and services*

- ❑ Is it feasible to exclude others from the use of this good?
- ❑ Is it possible to consume the good jointly without reducing the utility of each individual user?
- ❑ Which type of good are we talking about? Is it a private, common property or a public good?
- ❑ Which are the incentives prevailing (in terms of use) due to the characteristics of the good?

### *Incentives – characteristics of the actors and the arena*

#### The ‘Arena’

- ❑ Is there a ‘community’ of resource users?
- ❑ Which stakeholders exist among such resource users?
- ❑ Are there other actors involved with this resource, such as government agencies, NGOs or private companies?
- ❑ If applicable: how do the exchange relationships between actors (e.g. households and a middleperson) work?

#### The Actors

- ❑ What are the historical, social, economic and cultural factors in the community?
- ❑ Is there social cohesion, trust, and homogeneity of goals with regard to resource management? If not, what are the various goals / opinions that can be found related to resource management?

### *Incentives – characteristics of the rules*

- ❑ Which rules exist with regards to resource use?
- ❑ Are these rules formal or non-formal? Are they contradictory?
- ❑ Are the rules working or non-working?
- ❑ Do they address operational, collective decision-making or constitutional issues?

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<sup>22</sup> Adapted from: Fischer, A., Peterson, L. and W. Hapsett. 2004. *Natural Resources and Governance: Incentives for Sustainable Resource Use. A manual.* Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Berlin.

- ❑ Particularly relevant for operational rules: do people consider these rules as technically appropriate and reasonable? Who disregards these rules for inappropriateness?
- ❑ Which transaction costs are to be expected in order to modify rules?

Conclusions: Incentive overview

- ❑ Which incentives stimulate a more sustainable use of natural resources?
- ❑ Which incentives thwart sustainable management practices?
- ❑ Which incentives are dominant?
- ❑ What is the overall picture that we get?

*Incentive mechanisms*

Based on the incentive analysis, which incentives can help to:

- ❑ restrict unsustainable resource use;
- ❑ enhance sustainable resource management?

Are these incentive mechanisms:

- ❑ market-oriented
- ❑ regulatory
- ❑ cooperation or
- ❑ information-related incentives?

Which combinations of incentives appear most helpful?

Appropriate implementation activities

Which types of activities might change incentives towards resource management?

Appropriate activities might include:

(a) at an ***operational*** level

- ❑ technical or financial assistance
- ❑ technical advisory services to resource users
- ❑ technical advisory services to organisations

(b) at an ***organisational*** level

- ❑ advisory services on regulatory policy
- ❑ advisory services on management and organisation
- ❑ public relations, networking, mainstreaming

(c) at the ***process*** level

- ❑ advisory services on policy processes.

How do these types of implementation correspond to the *status quo* and to the planned incentive changes?

*Impacts*

How do incentive changes affect the situation? Do they lead to a modification of the characteristics of:

- ❑ the good (e.g. trees, fish, water)?
- ❑ the actors and their relationships?
- ❑ the rules with regard to resource use?

Are the goals related to resource management being achieved?

Are there any measures necessary to complement the prevailing incentives? Which incentives should be modified or adapted?

**APPENDIX F: CRITERIA FOR EVALUATING CBNRM PROGRAMS, THE BEGINNINGS**

This framework (below) could possibly serve as a ‘guide’ for projects. Specific indicators, relevant to the work of each project, would then need to be further developed.

Process-oriented criteria for evaluating the approach of CBNRM projects:

**1. Character of participation:**

- the respect and attention given to the opinions, ideas and perspectives of local people;
- the degree of control local people have in setting goals, making decisions, planning, implementing, and evaluating the program;
- the extension to the community not only of information, but also the capacity to solve problems on their own through appropriate means of assessment, analysis, and experimentation.

**2. Success and nature of institution- and capacity-building efforts:**

- building and strengthening institutions, such as people’s organizations, cooperatives, units of government, schools and universities, non-governmental organizations and research institutions
- building the capacities of those institutions and individual actors to affect change—i.e., through basic education and extension, technology-transfer, networking and partnership-building, specialized training, and orienting people toward future learning, experimentation, adaptation and innovation

**3. Diversity, multiplicity and adaptability of ideas promoted by the program:**

- diversity and multitude of ideas that can be adapted locally- to meet the variable and evolving economic, ecological and social demands of sustainability
- a full suite of options ensuring that the program’s recommendations are adoptable, adaptable and locally appropriate, and that ecological health will be enhanced through the promotion of diversity in land use and species composition.

**4. Accounting for heterogeneity, diversity and dynamism**

- orientation of programs toward heterogeneity within the community;
- assessment of different people with different interests and motivations.

**5. Understanding and use of local knowledge, skills, initiative and constraints**

- concerted effort to investigate—and then make use of—the knowledge, skills, initiative and constraints of the people it hopes to serve;
- program staff’s understanding of how and why households make decisions;
- primacy to local capabilities, needs, traditions, and ideas;
- reflected in targeting of interventions,

**6. Recognizing the influence of external conditions, markets and policies**

- awareness of influences on individuals and communities from markets, policies, or other external influences—economic, demographic, political, social, cultural, and environmental—which operate at national, regional, or even global scales;
- investigation of these influences, and design interventions with them in mind, even if the program has no control over them.

<b>OUTCOME-ORIENTED CRITERIA FOR EVALUATING SUSTAINABILITY OF CBNRM PROJECTS</b>	
Economic	Reduce inequality: improve intra and inter temporal wealth, land and benefit distribution with regard to age, gender, ethnicity, geography, economic class, and social position
	Reduce poverty: quantitatively and qualitatively enhance income, employment, productivity, food security, and livelihood opportunities while reducing involuntary landlessness
	Increase security of land tenure: to encourage long-term investments in the health and productivity of land
	Increase access to credit: for poor and small landholders, targeted for long-term investments & resource conservation
	Reduce dependency on external inputs: particularly expensive, inorganic, and non-indigenous inputs
	Diversify operations and livelihood strategies: to reduce risk and increase resilience
	Increase access to efficiently functioning markets and market information
Socio-political	Cultural acceptability: of the project's goals and methods (compared with Cambodian values), and the changes, technologies and policies promoted
	Policy support: promote policies favorable to project's goals or tailor interventions to work within existing policies
	Facilitate learning and knowledge-sharing: to 'empower' individuals and communities, e.g. through extension, farmer-to-farmer exchanges, participatory experimentation, school programs, technical assistance etc.
	Institutional flexibility/adaptability: to ensure resilience and continued relevance
	Facilitate a process of social change: to improve attitudes, values, awareness, and behaviors as they relate to the goals of sustainable development and community-based management
	Minimize consumption of non-renewable resources
	Organize communities and mobilize local resources toward the achievement of project objectives
Ecological	Maintain ecological integrity: promote the healthy function of balanced and bio-diverse ecosystems
	Protect and/or increase biological and genetic diversity (particularly of indigenous species): to improve nutrient cycling, soil or water conditions, productivity, and food security, while minimizing pests and risk overall;
	Prevent land degradation: preserve soil health and fertility e.g., through fallowing, crop rotation, careful management of organic matter, planting of nitrogen-fixing species etc.
	Protect air and water quality: prevent both point source and non-point source pollution, e.g. by minimizing erosion, nutrient runoff, and the application of inorganic agrochemicals.

Adapted from: Mog, 2004



**APPENDIX G: CAMBODIA-RELATED ‘ACADEMIC REFERENCES’, 2002 – 2006<sup>23</sup>**

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<sup>23</sup> Note that there is some overlap with the references used by this mission (see the references section). One of the tasks of the proposed research coordinator would be to keep track of this type of research and draw lessons from this for application in the action research projects.

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